

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM
THE ADMINISTRATIVE LAW COURT

H.W. Funderburk, Jr., Administrative Law Judge

Case No. 18-ALJ-07-0100-CC
Appellate Case No. 2019-001159

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SC Court of Appeals

Trident Medical Center, LLC d/b/a Trident Medical
Center,..... Respondent,

v.

South Carolina Department of Health and Environmental
Control and Medical University Hospital Authority d/b/a
MUSC Radiation Therapy Center – Berkeley County, ... Respondents,

Of Which, Medical University Hospital Authority d/b/a
MUSC Radiation Therapy Center – Berkeley County is
the..... Appellant.

RECORD ON APPEAL
VOLUME III

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1 actually I don't know if it was testimony or
2 questioning -- about Palmetto Primary Care at
3 MUSC. And I think the point was this related
4 to potential adverse impact. Do you recall
5 that?

6 A: I heard that, yes.

7 Q: Do you have any opinions about that?

8 A: Yeah. So, what I heard was that the alliance
9 or affiliation or cooperation of Palmetto
10 Primary Care would have an impact on Trident
11 because those doctors would then send cancer
12 patients that they had previously sent to
13 Trident to MUSC. What I didn't hear, which is
14 the important part of demonstrating that, is
15 any evidence. They didn't identify the volume
16 of patients that come from Palmetto Primary
17 Care. They didn't identify the types of
18 patients that come from Palmetto Primary Care.
19 They didn't identify what redirection they
20 thought would occur, what physicians even would
21 redirect. So, I think it was just sort of an
22 empty claim that, well, it's going to hurt us,
23 but we don't know how much.

24 Q: All right. Anything else you'd like to offer
25 on adverse impact?



1 A: Well, I think that -- I think it seems a bit of
2 a disingenuous argument that Trident says, you
3 know, these two new linear accelerators are
4 going to adversely impact us. Well, first of
5 all, MUSC isn't a new accelerator. It's an
6 expansion of existing. It treats MUSC patients
7 that are in the MUSC system from primary care
8 to specialty care to cancer care. And so, I
9 think that we demonstrated we're not going to
10 adversely impact any provider in the market,
11 including Trident.

12 Q: All right. Trident Exhibit 55. There was some
13 testimony and questioning from Trident about
14 DHEC's decision to deny MUSC's 2015 CON
15 application. Maybe it was the 2015 denial. It
16 looks like December 22, 2015. Do you have any
17 health planning opinions regarding that? And
18 I think the gist of it was, if DHEC denied MUSC
19 the opportunity to establish a linac in North
20 Charleston in 2015, they should do the same
21 thing now. Not much has changed was the gist.
22 Do you have any opinions about that?

23 A: Yeah. I think unfortunately the biggest change
24 is I think the 2015 decision was wrong,
25 obviously.



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ROA_1002

1 Q: In what way?

2 A: I think it should have been approved, the
3 project should have been approved. That we had
4 demonstrated need for the project. And I think
5 that DHEC had -- I think this was the first
6 linear accelerator application that Ms. Murdock
7 and Mr. Eubank had reviewed. And I don't think
8 they had a full understanding of the
9 regulations and the Health Plan.

10 Q: What specifically do you assert was erroneous
11 about the decision?

12 A: Well, first, they rejected our argument that
13 our capacity should be 5,000 at the new
14 location. We identified it to be 5,000 based
15 off of the analysis of patients treated at
16 MUSC, the level of IMRT provided, and the level
17 of IMRT that's expected to be provided. So,
18 very similar to Mr. Gallati's letter where he
19 said they're going to be treating a lot of SBRT
20 patients -- I don't think a lot. I think he
21 just said they are going to be treating SBRT,
22 so they have a lower capacity. We said we're
23 treating IMRT patients just as we do on the
24 peninsula, so the capacity should be lower.
25 So, they rejected that.



1 Q: Wasn't there an issue regarding the timing of
2 data, updated data?

3 A: Yes.

4 Q: Explain that.

5 A: So, if you go to the next page, Standard 7,
6 that we had two years of JAR data that showed
7 we were over 80 percent. And then through the
8 course of the review they showed that the most
9 recent JAR went below 80 percent. So, she
10 denied the application saying that, during the
11 review cycle, volumes went down and you should
12 be denied.

13 Q: What's wrong with that?

14 A: Well, because they took a long time to make a
15 decision, they have different data that shows
16 we no longer met it. And we explained why we
17 no longer met it in that time period and
18 related it to equipment replacement. And they
19 didn't accept that. So, I think that was a
20 mistake.

21 Q: All right. Anything else?

22 A: Then they also go through the analysis of the
23 existing providers in the market. I think
24 that's a mistake because, if you see the last
25 sentence on Standard 7 -- wait, hang on. Zoom



1 out again. Community need. So, under
2 community need they erroneously gave
3 consideration to the service area. So ---

4 Q: And why is that wrong to give consideration to
5 the service area?

6 A: Well, because this isn't a new provider, so it
7 doesn't matter what the other providers are
8 doing in the market. The fact is that MUSC was
9 over 80 percent, submitted an application, said
10 we needed additional resources. And under
11 Standard 7, you don't consider the utilization
12 on the existing providers, you consider the
13 utilization on the applicant.

14 Q: Okay. Anything else?

15 A: I think that's enough.

16 Q: Okay. Well, how about this? So, in your
17 health planning opinion, is the comparison, is
18 the 2015 denial from a health planning
19 perspective probative or valuable in analyzing
20 what we're doing today?

21 A: No.

22 Q: Okay. So, I talked to Mr. Sullivan about his
23 proposed solution for our patients, patients in
24 the service area who currently come to us for
25 cancer care. And the solution was, outsource



1 those patients to Trident for radiation -- for
2 all cancer care, for that matter. Do you have
3 any health planning opinions about that
4 proposed solution?

5 A: Yeah. I mean, it just doesn't work that way.
6 People go to MUSC for a reason. They choose
7 their primary care doctor for a reason. They
8 choose their cancer specialist for a reason.
9 They choose the location for a reason. You can
10 see by a patient origin, we draw people from
11 all over the state. And using that same
12 analogy, all those people are going to be
13 treated wherever they live. So, we have an
14 affiliation -- we being MUSC -- have an
15 affiliation with Tideland in Georgetown
16 County. Many people from Georgetown County
17 come to MUSC, even though they could stay
18 there. Some of them do stay there. They would
19 have otherwise gone to MUSC. Some don't. So,
20 these people are choosing to go to MUSC
21 resources, sometimes even the main resources.
22 So, to say, well, you know, MUSC, those people
23 that lived in Horry County, just send them to
24 Grand Strand. They don't want to go to Grand
25 Strand. They want to go to MUSC. They've



1 chosen to go to MUSC. The analogy that you
2 could just send them to Trident, I think is
3 just -- it doesn't make sound health planning
4 sense. If you look at that map we looked at
5 showing the hub and spoke, then there shouldn't
6 be any facility that is near another facility.
7 So, look at Moncks Corner. There are two free-
8 standing EDs in Moncks Corner. Well, why did
9 Trident build theirs? Why didn't they just
10 send patients to the Roper freestanding ED?
11 They didn't need an ED there. They could just
12 send to Roper.

13 **MR. THOMAS:** Objection, Your Honor. This is, again,
14 a narrative thing. It's speculating on why
15 Trident built a freestanding ED there and
16 saying that Trident could have just sent -- you
17 don't just send patients to an ED. Patients go
18 to an ED by EMS or they take themselves there.
19 He's starting to kind of -- I mean, I don't
20 want to be rude, but it's getting a little far
21 afield.

22 **THE COURT:** All right. I agree on that. I think we
23 are getting a little far afield.

24 **MR. DAYHUFF:** And I appreciate that, Your Honor.
25 We're exploring Mr. Sullivan's proposed



1 solution in different contexts and pointing out
2 that it's not practical or reasonable or --
3 it's not occurring, quite frankly. But I
4 appreciate that, if you want us to move on, we
5 can.

6 **THE COURT:** Well, I don't plan on belaboring this,
7 but it seems to me that we're dealing here with
8 a radiation therapy center. And whether there
9 is a freestanding emergency department here or
10 there, little to do with that. And I
11 understand that we're talking and in some sense
12 in a context of where people are putting
13 things, but ---

14 **MR. DAYHUFF:** I'll ask -- how about a linear
15 accelerator specific question?

16 **THE COURT:** I would appreciate that. I'm not sure
17 if anybody else would, but I would.

18 **MR. DAYHUFF:** All right. Well, good.

19 Q: So, there was discussion that I had with Mr.
20 Sullivan about the St. Joseph/Candler linac and
21 why they put a linac there -- their Savannah
22 Hospital put a new linac in Bluffton. Do you
23 recall that discussion?

24 A: I do.

25 Q: And Mr. Sullivan said, oh, that's different.



1 It's a different need, different situation.
2 What opinions do you have about that?

3 A: Well, simultaneously MUSC had an application to
4 put a linear accelerator less than a mile from
5 where they were proposing to put a linear
6 accelerator. So, if that's the health planning
7 concept for linear accelerator services is just
8 send them to the closest one, there doesn't
9 need to be two a mile away. MUSC's going to
10 build theirs, St. Joe's is already on Hilton
11 Head. If they had someone in Bluffton that
12 needed care, they could just send them to the
13 new MUSC place.

14 Q: All right. One other question on this topic.
15 I believe Mr. Sullivan says that the Nexton
16 linac, if we establish that, we're doing
17 institutional health planning and not community
18 health planning. Do you have any thoughts
19 about that?

20 A: Yeah. You know, I've heard him say that a few
21 times. Well, all planning is institutional in
22 the context of community. So, unlike general
23 -- I mean, MUSC is a member of the community.
24 So, if you're planning for services at MUSC,
25 you're applying for services for residents that



1 live in the community that are treated at MUSC.
2 So, it's both. But specifically in this case
3 there is a standard in the Plan that
4 specifically identifies institution-specific
5 planning and needs for a provider. And that's
6 Standard 7. It says that, if you are full at
7 80 percent utilization, then you need
8 additional resources. And Standard 6 looks at
9 the community and says, is everybody full and
10 is there need for a new entrant into the
11 market? So, to the extent it's institutional
12 planning, it is. It's part of the community
13 planning and it's appropriate.

14 Q: So, Standard 7 incorporates an element of
15 institutional planning?

16 A: It does.

17 Q: All right. Let's go to MUSC Exhibit 93.

18 **(Respondent MUSC's Exhibit Number 93 was introduced**
19 **into the record at this time.)**

20 Q: So, there was testimony from Trident's case in
21 chief and there was some questioning about
22 Trident operating two or three linacs since
23 2015. And you've got an exhibit that you
24 prepared here for us on that topic. What does
25 this exhibit demonstrate?



1 A: I did. So, the top right,
2 Capacity/Utilization, is Mr. Sullivan's slide
3 saying that they have ample capacity to treat
4 patients; they can treat over a hundred
5 patients a day during their business hours. I
6 think at the time they only had two machines,
7 but I gave them the benefit of the doubt and
8 said it's three machines that they're talking
9 about that they could do a hundred patients on.
10 So, right now they identified they only have
11 machines operational. They're replacing one
12 and they're going to turn the other one into a
13 standby, so they'll still only be operating two
14 machines. So, if three machines can do a
15 hundred, two machines could do 66, you know,
16 two thirds of a hundred. That's rounded. It's
17 66.6666, but -- so, 66 treatments on 255 days.
18 And Mr. Sullivan, I think, did the math in his
19 head and said that's 16,500 treatments they
20 could do on two machines at their capacity. I
21 think it's 15 minutes a treatment or something.
22 So, they have two machines that can treat
23 16,500 patients. They've consistently had
24 around 11,000 treatments for the last eight
25 years. So, in 2017 they had 11,019 on that



1 16,500 capacity. They're at 66 percent of
2 capacity, so they're not full. But yet in
3 2018, just a few months ago, they asked DHEC if
4 they could spend four million dollars to
5 replace a machine that they don't use to treat
6 patients that they don't expect to have
7 additional patients in the future. Mr.
8 Sullivan said the market's flat. There's not
9 a need for more equipment in the market. Well,
10 they're replacing a piece of equipment that's
11 not in the market. It's there. It was there.
12 It's not there now. It was there at one point
13 in time. But they weren't using it. So, in my
14 deposition it came up that, well, doesn't it
15 make sense to replace old equipment? Well, it
16 may, but they're not. They're replacing the
17 medium equipment. The old equipment they're
18 keeping. The one that they're using today is
19 still going to be there. That's not the one
20 they're replacing.

21 Q: Mr. Sullivan, when I asked him about this,
22 said, look, we've got a third linac and
23 redundancy. There's some benefits of
24 redundancy. What thoughts do you have about
25 that?



1 A: Yeah. That's not health planning criteria,
2 redundancy. A back-up accelerator isn't health
3 planning criteria. And there are a number of
4 providers in the state that have one
5 accelerator. So, they don't have redundancy or
6 back up to the extent that a machine goes down.
7 They pay literally hundreds of thousands of
8 dollars a year for a maintenance contract
9 that's going to prevent that from happening.
10 And if it does happen, they have very quick
11 response times. My experience with providers,
12 with the exception of one, any down time is
13 very short, a matter of hours, perhaps a day.
14 The one example would be Spartanburg. I think
15 they were down for two days, because they
16 basically -- the main component failed and they
17 had to -- I think at the time it was a Seimens,
18 so they had to send off to Germany for the
19 replacement part and it took two days to get
20 here. So, that's the extent to which there's
21 backup needed. They already have two machines,
22 so they already have redundancy.

23 Q: All right. Well, so they have more machines
24 than they need resulting in a utilization
25 that's low.



1 **MR. THOMAS:** Objection, Your Honor. He's -- first
2 of all he's testifying now, Mr. Dayhuff is.
3 He's not asking a question. He's trying to
4 summarize his witnesses testimony, which is
5 already in the record. So, you know, if he
6 wants to ask a question, ask a question, but I
7 don't think the summary testimony, which would
8 be in the record, he can actually refer to
9 that. All he has to say after what he says is
10 yes, right, and then that can go in the record
11 a certain way. And, you know, I don't want to
12 have to anticipate when that's done and change
13 things, but he's not asking a question. He's
14 leading his witness.

15 **MR. DAYHUFF:** We are doing a lot of anticipating
16 where that was going to go, but I'll rephrase,
17 Your Honor.

18 **Q:** The utilization that Trident experienced in
19 2017 is 66.8 percent.

20 **A:** Correct.

21 **Q:** All right. And that is, in part, because they
22 have three machines?

23 **A:** No. That 66.8 is based off their capacity,
24 what they think they can do on two machines.

25 **Q:** Oh, on two machines. All right. Okay. Well,



1 we looked at -- during project review did
2 Trident put up slides that talked about their
3 utilization, their under-utilization?

4 A: Yes. So ---

5 Q: And it was a number that was near that, so I
6 think that's what's confusing. Do you recall?

7 A: It is confusing. So, based on the health
8 planning capacity of 16,500, it comes out to be
9 the same number. So, the 16,500 in the Health
10 Plan is from one machine at 4,500, one machine
11 at 5,000, and one machine at 7,000. So, the
12 number come out the same on three machines in
13 the health planning -- in the Health Plan. But
14 based on their testimony at the project review,
15 16,500 would be the capacity on two machines.

16 Q: Understood. But in the project review process
17 when they said that they were about 63 percent
18 capacity, that's based on three machines; is
19 that right?

20 A: Yes.

21 Q: All right. So, and we were discussing that
22 they have three machines. So, what effect on
23 our project? What effect on the health
24 planning in this case, the fact that they have
25 three machines and are using two?



1 A: Yes. It's disingenuous, I think, for them to
2 say look, there's not a need for additional
3 resources. Our volumes aren't going up. We're
4 poorly utilized. The market's not going to
5 grow. Treatments are down. But we're going to
6 spend four million dollars to replace a machine
7 we don't use.

8 Q: All right. Good. All right. Any further
9 thoughts on this slide?

10 A: I think that covers it.

11 Q: All right. Let's talk about the purpose of the
12 CON Act.

13 MR. DAYHUFF: Mr. Bupp, can you put that up please?
14 Thank you.

15 Q: I'd like to highlight the last two. So, public
16 needs. Facilities and services which best
17 serve public needs and ensure high quality
18 services are provided in the health facilities
19 in the state. Have you considered whether the
20 Nexton facility furthers that purpose in the
21 CON Act?

22 A: I have and I feel that it does.

23 Q: All right. Now, we heard testimony, I think
24 from Mr. Sullivan, that MUSC has deeper and
25 broader cancer care than Trident. Do you



1 recall that?

2 A: I do.

3 Q: All right. Does that deeper and broader cancer
4 care have any effect upon your opinion that
5 this -- these two purposes are fulfilled?

6 A: Yes. So ---

7 Q: All right. How?

8 A: So, the fact that we are at a level of
9 utilization where we require additional
10 resources, we need another machine, and we are
11 a high-quality provider of this specific
12 service, as well as other services, that by
13 allowing us to develop the Nexton Cancer Center
14 with radiation therapy services, it best meets
15 the public needs, there's a need for another
16 accelerator at MUSC, and ensures high-quality
17 services are available to residents of the
18 area.

19 Q: What elements, if any, of this deeper and
20 broader care inform that opinion?

21 A: Well, it's the resources at the Hollings Cancer
22 Center and throughout MUSC in general. So, the
23 fact that they are NCI designated, they have
24 accolades and awards, they have a vast number
25 of oncology specialists, they have radiation



1 oncologists, medical oncologists, surgical
2 oncologists, it just goes to that high-quality
3 services that are offered at MUSC.

4 Q: How, if at all, are the specialists at MUSC
5 differ than the cancer providers at Trident?

6 A: Right. So, I heard the testimony of Trident
7 that they have, I think, three radiation
8 oncologists. And that's it. So, they've got
9 some medical oncologists on staff, who they
10 said aren't employed, who I guess treat
11 patients there. And then they didn't even have
12 the correct nomenclature. They said they've
13 got surgeons that can do cancer cases. So, in
14 a cancer center you have the three disciplines,
15 as I talked about; radiation oncology, medical
16 oncology, surgical oncology. So, not surgeons
17 who can do oncology treatment. It's surgical
18 oncologists, that's a subspecialty, and then
19 there are sub subspecialties under that with
20 specific types of surgical oncologists,
21 surgical gynecologists, surgical thoracic
22 surgeon, you know, surgical oncology thoracic
23 surgery. So, they have those resources and
24 individuals at MUSC, as you would expect at any
25 academic medical center, because they have to



1 train these people, as well as any NCI-
2 designated cancer center.

3 Q: And why is that relevant to these two purposes?

4 A: Well, I think allowing development of a
5 facility best serves the public needs by
6 allowing increased access to all of those
7 resources that are high quality.

8 Q: The multi-disciplinary care that MUSC provides,
9 how does that compare to what Trident provides?

10 A: Again, it's much broader and deeper. I talked
11 to Dr. Jenrette. Unfortunately, he had to go
12 after me. But I've talked to him in the past
13 and I heard Dr. Cawley say there are 11
14 specialized clinical care teams and tumor
15 registries that meet -- I'm sorry, tumor boards
16 the meet and discuss these different
17 subspecialized sites of cancer care relative --
18 compared to Trident's single tumor board. And
19 frankly that's a requirement of the CON regs,
20 that you have to have a tumor board.

21 Q: Right. Right. Now, let's look at MUSC 61 for
22 a minute.

23 **(Respondent MUSC 's Exhibit Number 61 was introduced**
24 **into the record at this time.)**

25 Q: This is an exhibit you asked us to show on that



1 topic. What does it demonstrate?

2 A: Right. So, I talked about this, I believe, in
3 my deposition. The clinical trials, the
4 comparison of clinical trials, Trident has no
5 oncology clinical trials going on. MUSC has
6 almost 340, 339 clinical trials ongoing,
7 specifically oncology. They have other
8 clinical trials going on too, but specific
9 oncology, 339. So, it's sort of the
10 opportunity to be exposed to clinical trials
11 for patients. I mean, I think it's pretty
12 clear MUSC is a better option than Trident to
13 be exposed to clinical trials.

14 Q: All right. And let's put up -- we had a slide
15 that I believe Dr. Cawley looked at, DX 5. So,
16 we don't need to go through all of these, but
17 how, if at all, are these recognitions related
18 to your opinion that our proposed facility
19 would further those two purposes of the CON?

20 A: Sure. So, these are the accolades of MUSC,
21 NCI-designated Cancer Center. You know -- you
22 heard there aren't a lot of those in the
23 country. We're the only one in South Carolina.
24 You can see most states only have one and we're
25 the one in South Carolina. The US News & World



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1 Report superlatives, we've got a number of
2 those, including best hospital in the state,
3 Becker's 100 Great Hospitals in America. So,
4 of the over 5,000 hospitals in the United
5 States, we're in the top 100. So, I think all
6 of these superlatives and recognitions by
7 external organizations, many of which relate to
8 quality, show that MUSC is a high-quality
9 provider. And by developing of the Nexton
10 linear accelerator location, it extends those
11 resources to the community.

12 Q: I heard some testimony in questioning along the
13 lines of MUSC Nexton will offer less than our
14 downtown linacs. And let me be specific,
15 stereotactic, HDR, RapidArc, telehealth. Do
16 you have and health planning opinions about
17 that line of questioning?

18 A: I do. So, going in reverse, telehealth is
19 offered everywhere MUSC provides care. It's
20 something that they're on the forefront of,
21 that they have specific funding to provide
22 telehealth services throughout the state. So,
23 to the extent that telehealth is necessary,
24 it's going to be at the Nexton location.
25 RapidArc, I wasn't clear why someone said we



1 weren't doing RapidArc, because we are.

2 Q: How do you know?

3 A: It's in the quote, the linear accelerator
4 quote. It identifies RapidArc as being
5 included.

6 Q: Okay.

7 A: So, RapidArc's part of it. Stereotactic we
8 initially identified in the application.
9 That's not something we're going to be doing
10 initially out there. But to the extent that
11 the need is identified, Dr. Cawley said it, we
12 said it in the application, we would add it.
13 Because we have a Gamma Knife downtown, we
14 wouldn't do brain stereotactic. We would do
15 body stereotactic. That doesn't require any
16 additional equipment. The linear accelerator
17 we're buying, you could do body stereotactic
18 treatments on. It would just require a
19 software upgrade or change. And to the extent
20 it's less than \$600,000, which is everyone's
21 belief, it wouldn't require a CON.

22 Q: So, we wouldn't have to get a CON, new CON to
23 add those elements?

24 A: Correct. And if we did, if it were over
25 600,000, they'd apply and get another CON.



- 1 Q: All right. Good. Let's go back to the
2 purposes of the CON Act for a minutes, DX --
3 demonstrative 35. So, I think we've addressed
4 the last two purposes. Have -- and I believe
5 we've addressed unnecessary duplication. Do
6 you believe that this project doesn't result in
7 unnecessary duplication? That was our
8 discussion during community need; is that
9 right?
- 10 A: Yeah. So, to the extent that we demonstrated
11 community need, we've demonstrated the need for
12 the project, so it's not unnecessary
13 duplication.
- 14 Q: All right. The only purpose then left that I
15 want to touch on is cost containment. Does
16 this project further that CON Act purpose?
- 17 A: It does on a couple different levels. So, the
18 first is sort of the most basic level. You
19 know, we're leasing space. We talked about
20 Equity, LLC building the building, so we're not
21 incurring the cost of building the building.
22 To the extent that we tried to put it on the
23 main campus, there is no place on the peninsula
24 adjacent to the existing linear accelerators to
25 add another vault, so the cost would be



1 prohibitive putting it there. And then, again
2 East, Cooper, Mr. Sullivan's alternative, it
3 doesn't make health planning sense from a
4 patient origin perspective or an access
5 perspective. And we built that location on the
6 campus of the East Cooper Hospital and they
7 left us. They moved away. They replaced their
8 hospital. So, that cancer center's still
9 there. And it wouldn't make sense to add to
10 that location.

11 Q: In your health planning opinion, does the MUSC
12 CON application satisfy all the relevant State
13 Health Plan standards?

14 A: It does. It satisfies the purpose of the Act,
15 all the health standards, the rules and
16 regulations, and the criteria in the Health
17 Plan.

18 Q: All right. Please answer any questions Mr.
19 Thomas has for you.

20 **MOTION BY MR. THOMAS:**

21 **MR. THOMAS:** Your Honor, point of order before I
22 launch into questioning of Mr. Levitt. I'm
23 going to look to you to give Mr. Levitt a
24 direction under 6-11 and -- under the South
25 Carolina Rule of Evidence 6-11. And I do this



1 in the interest of time. Otherwise, I'd like
2 to break for the day and do a little bit more
3 from a cross-examination perspective to
4 prepare. And the main thing is, I've deposed
5 this man many times. I have -- I believe I've
6 examined him on the stand before. And as he is
7 kind of wants to do on Direct Examination he is
8 40 times more want to do on a Cross-
9 Examination. By that I mean launch into
10 narratives. I want to give you an example as
11 part of this motion, so you see that I'm coming
12 from a true place here. I asked in his
13 deposition, I think you've got a chart in here
14 about way finding. But does that apply, given
15 the valet parking that MUSC has for its
16 oncology center?

17 **MR. DAYHUFF:** Objection. Snark.

18 **MR. THOMAS:** A very -- you know, a very direct
19 question about valet parking. This was Mr.
20 Levitt's answer: Yes, because if they don't
21 use the valet, which I think is reasonable --
22 if valet is backed up -- you know, we went
23 through this in Rutledge dialog, the valet
24 backs up. The Hollings valet backs up. So, I
25 think way finding is an issue. That's where he



1 needed to stop. But what he said was, and I
2 guess I'll just go ahead and sort of offer some
3 opinions that you haven't asked about. Mr.
4 Sullivan suggested the best alternative was to
5 put it at East Cooper. So, he launches into a
6 thing about where it ought to go when I asked
7 a question about valet parking. He did this on
8 many other occasions, and I could go through
9 example after example. So, the only direction
10 I'm asking you to give him is to ask the
11 question -- or answer the questions that I ask
12 and not start launching into opinions that are
13 not related to the question I ask, because, if
14 so, we're going to be here a long time. And in
15 the interest of time, I'd really like for that
16 -- for The Court to give Mr. Levitt some
17 direction.

18 **MR. DAYHUFF:** May I respond?

19 **THE COURT:** Please.

20 **MR. DAYHUFF:** So, the example that was cited, it's
21 my goal with my expert witnesses to make sure
22 they offer all the opinions they're going to
23 offer at trial, because otherwise they may be
24 excluded. So, Mr. Levitt was doing Mr. Thomas
25 a favor by saying, and here are some other



1 opinions I'm going to offer that you need to
2 know about. So, that was disclosure of expert
3 opinions. Two, I suppose, I've never seen kind
4 of this preemptive motion with respect to stuff
5 that hasn't occurred yet. I don't think that's
6 appropriate. You could take it up as it comes.
7 If it comes -- if Mr. Levitt ceases to answer
8 his questions, I am sure that this Court will
9 say, answer the question. And I have no fear
10 that he will answer those questions. Now, he
11 will be able to offer explanation, much like my
12 friend Mr. Sullivan did. But I would ask you
13 to deny this and we move forward.

14 **THE COURT:** Well, okay, I'm going to try to cut the
15 baby here. I hope I don't trim off anything
16 important. But, Mr. Levitt, answer the
17 question. If you have an explanation for your
18 answer, that's fine. But don't go farther than
19 the question that's asked.

20 **MR. LEVITT:** I will try to do that.

21 **THE COURT:** Okay. Is that ---

22 **MR. DAYHUFF:** That's fair, Your Honor.

23 **MR. THOMAS:** Yes, Your Honor. Thank you.

24 **THE COURT:** Just for some reasons that I have
25 perhaps made some promises that you guys can't



1 keep, Mr. Thomas, how long do you think the
2 Cross-Examination will be?

3 **MR. THOMAS:** I don't know. And the reason I say
4 that is I just -- again, I thought my -- I
5 thought my deposition of Mr. Levitt was going
6 to take two hours. It took closer to four.
7 So, I'm not sure with this witness, just
8 because, you know, he's an expert and that's
9 what he does, but he's a fighter. So, you
10 know, we've got to work through that sometimes
11 and that can greatly increase the time. And
12 then, you know, I'm going to save a lot of what
13 I got -- or what I heard today for Mr.
14 Sullivan's rebuttal, so we can kind of clip
15 through that tomorrow. But, I mean, if I had
16 to guess, Your Honor, it could be as little as
17 45 minutes or as much as an hour and a half.
18 I know that doesn't help you much.

19 **THE COURT:** Well, it helps a little bit.

20 **MR. THOMAS:** I'd also be willing to start at 9:00
21 o'clock in the morning, if you'd be willing to
22 do that.

23 **THE COURT:** Well, we could certainly do that. Let's
24 go off the record for just a moment.

25 (Off the Record)



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1 **THE COURT:** We are back on the record in case number
2 18-07-0100. All right. Mr. Thomas.

3 **MR. LEVITT - CROSS-EXAMINATION BY MR. THOMAS:**

4 Q: Mr. Levitt, just for the record and for this
5 line of questions, MUSC applied for the linear
6 accelerator at Nexton in May of 2017, correct?

7 A: Yes.

8 Q: All right. And the decision was issued in
9 November of 2017?

10 A: I think so, yes.

11 Q: Okay. Would you agree with me that, when DHEC
12 rendered a decision on MUSC's CON application
13 for the Berkeley County linac in November 2017,
14 MUSC had not yet applied for its 325 million
15 dollar Berkeley County Hospital?

16 A: I think they submitted that in December.

17 Q: Okay. And MUSC had not yet been a party to the
18 joint venture that applied for the south abroad
19 hospital until January of 2018, correct?

20 **MR. DAYHUFF:** Your Honor, for the record, we restate
21 our objection that we made previously on this
22 line of questioning as not being raised below.

23 **MR. THOMAS:** I couldn't have raised it below, Your
24 Honor, because I didn't know about it.

25 **MR. DAYHUFF:** You knew about most of it. I don't



1 want to go into it, but that's our objection.

2 I'm just preserving it for the record.

3 **THE COURT:** I understand.

4 **MR. THOMAS:** Okay.

5 **THE COURT:** I'm going to allow the questioning. I
6 certainly understand both the reason why he's
7 asking it and the reason why it may not be
8 relevant.

9 Q: Mr. Levitt, MUSC had not applied for the south
10 abroad hospital until January of 2018, correct?

11 A: I don't know the date, but I will accept that.

12 Q: Okay. Are you familiar -- you seem to know a
13 little bit about the Beaufort County linear
14 accelerator project, as you testified about
15 that today to some degree, correct?

16 A: Yes.

17 Q: Okay. MUSC had not applied as a JV partner in
18 a Beaufort County linac project until after
19 DHEC's decision in this case as well, correct?

20 A: I believe that's correct.

21 Q: Okay. MUSC had not announced that it was going
22 to spend 140 million dollars on four hospitals
23 throughout the state until after the
24 Department's decision in this matter, correct?

25 A: They still haven't announced that.



1 Q: Okay. Are you aware of that?

2 A: I am through Mr. Cawley's -- Dr. Cawley's
3 testimony, which surprised me because it's
4 under a confidentiality agreement. But, yes,
5 I understood that that's what he said.

6 Q: Okay. So, would you agree with me that that's
7 close to a half a billion dollars of spending
8 by MUSC postdating the Department's decision in
9 this case, spending or proposed spending?

10 A: I mean, if that's what the numbers add up to,
11 I'm not going to dispute it, for CON purposes,
12 but I don't know all of those are, you know,
13 solely attributable to MUSC. We talked about
14 joint ventures.

15 Q: Sure. Fair enough. And it's your
16 understanding that MUSC had 2.8 million dollars
17 of adjusted operating losses in fiscal year
18 2018, correct?

19 A: I'd have to go back and look at that document,
20 but that sounds -- from operations for that
21 year, I believe, given effect of the pension
22 funding that's, I think, the number, yes.

23 Q: Okay. Now, although there were some options
24 presented in that financing letter that we
25 looked at in the CON application, do you recall



1 that, that kind of had the dual letterhead with
2 MUSC and Alliance; it's in the CON application
3 for the funding?

4 A: Yes.

5 Q: Okay. You would agree with me that at this
6 time you don't definitely know how the project
7 is going to be financed; is that a fair
8 statement?

9 A: Not specifically. We know through an affiliate
10 of the JV.

11 Q: Okay. Are you confident, Mr. Levitt, that MUSC
12 plans to actually locate its radiation therapy
13 center at the Nexton development as stated in
14 the CON application?

15 A: As we sit here today, yes.

16 Q: Okay. Were you aware that MUSC just informed
17 DHEC that it was moving its proposed
18 freestanding ED location to an abandoned
19 Applebee's in Summerville on the south side of
20 I-26?

21 **MR. DAYHUFF:** So, just as long as this goes both
22 ways. When we discussed FEDs, to expand upon
23 Mr. Sullivan's opinions, we received an
24 objection because we were going too far afield.

25 **THE COURT:** Right.



1 **MR. DAYHUFF:** He's talking about a different
2 project, a different case.

3 **MR. THOMAS:** I'm sorry. Maybe I should do this,
4 Your Honor. Because the freestanding ED was
5 actually slated for the Nexton location. And
6 so that was the point of my questioning.
7 They're moving it now. So, this is a big thing
8 that it's going to be in this Nexton area and
9 Summerville and, you know, adjacent to all of
10 the demographics that Mr. Levitt brought up.
11 So, I was just wondered if he was confident of
12 that, given this recent development for the
13 moving of the freestanding ED.

14 **MR. DAYHUFF:** Not relevant, not probative, not in
15 line with the instructions of this Court to
16 stay focused on the linac.

17 **THE COURT:** Yeah. I ---

18 **MR. THOMAS:** Let me -- I want to respond to that,
19 because I need to get this on the record. My
20 objection -- Mr. Dayhuff actually just
21 misstated my direction -- my objection. My
22 objection was, he was asking him a question
23 about the freestanding ED and he started
24 offering opinions of why Trident located a
25 freestanding ED there. I didn't necessarily



1 object -- I said that's getting far afield,
2 when you're asking him to speculate about what
3 my administrators at Trident were doing in
4 terms of locating. So, I'm just asking about
5 a location. It's a big deal that they've made
6 out of this in this Nexton area.

7 **MR. DAYHUFF:** Same objection.

8 **THE COURT:** All right.

9 **MR. THOMAS:** And it's the only question I have about
10 it.

11 **THE COURT:** Well, if I take that as a promise, I'll
12 allow that question then. But just to be clear,
13 that was my comment about how far afield we're
14 in.

15 **MR. THOMAS:** Okay.

16 **THE COURT:** And I would like to, as much as we can,
17 to focus on this CON for this facility.

18 **MR. THOMAS:** Yes, sir. And the question relates to
19 the facility, Your Honor, because it's not
20 going to be there at Nexton. That's kind of a
21 big deal.

22 **Q:** So, Mr. Levitt, were you aware that MUSC just
23 informed the Department that it was moving its
24 freestanding ED to an abandoned Applebee's?

25 **A:** I was aware they were -- I didn't realize that



1 they'd notified the Department as to where they
2 were moving it.

3 Q: Okay. But you're confident that the radiation
4 therapy center will stay in the Nexton
5 development?

6 A: Yes.

7 Q: I think, just for the foundation, you're
8 familiar generally with the terms SRS, SBRT,
9 and HDR as it relates to radiation therapy?

10 A: Yes.

11 Q: Okay. To your knowledge, Mr. Levitt, was the
12 technology to perform SBRT and SRS treatments
13 on linear accelerators available to healthcare
14 institutions interested in providing those
15 types of treatments as far back as 2014?

16 A: I'm not sure when it became mainstream.

17 Q: Okay. Was the technology available to
18 healthcare institutions interested in providing
19 those types of treatments in 2014?

20 A: I believe it was, yes.

21 Q: In fact, MUSC was providing treatments on its
22 -- oh, I guess it was the iX linear accelerator
23 to include SRS and SBRT back in 2014, correct?

24 A: I'd have to look at the data, but, yes, they
25 were providing that service.



1 Q: Okay. And the technology to provide HDR
2 procedures was also available to healthcare
3 institutions in 2014 if they wanted to purchase
4 that, apply for it, and add it to a radiation
5 therapy center, correct?

6 A: Yes.

7 Q: Now, I think, just for the record, MUSC, in the
8 application, specifically indicates that it
9 will not purchase the upgrades for SBRT and SRS
10 initially, correct?

11 A: Yes.

12 Q: Okay. So, until they get those upgrades, the
13 patients who are in need of SRS and SBRT-
14 related radiation therapy will have to continue
15 to go downtown or to the Mt. Pleasant location,
16 correct?

17 A: Yes.

18 Q: And then MUSC patients who are in need of HDR
19 would also have to be referred downtown for
20 that service, correct?

21 A: Unless they bought it before they opened, yes.

22 Q: Okay. And do you know of plans for MUSC to do
23 that?

24 A: I understand that they will provide what
25 services are necessary. So, if someone says



1. they need it before they open, then they'll do
2. what they need to do to make that happen.

3. Q: Do they provide HDR at the Mt. Pleasant
4. location right now?

5. A: I don't know.

6. Q: After Mr. Sullivan was deposed, you had a
7. conversation with Ms. Sarah Bacick, who is
8. MUSC's planner, correct?

9. A: She's their Chief Planning Officer, I think is
10. her title. Yes.

11. Q: And the reason you had that conversation is
12. because you were curious if MUSC was going to
13. supplement any services out at Nexton, such as
14. HDR, correct?

15. A: Yes.

16. Q: As of today, what we know in the application
17. what's going to be offered for the purposes of
18. this Court proceeding, is going to be
19. conventional treatments, IMRT, IGRT, correct?

20. A: I guess I'm not sure I understand the question.
21. Those will be offered, along with other things.

22. Q: What are the other things?

23. A: Well, they talked -- Dr. Cawley talked about
24. there are going to be medical oncologists. So,
25. chemotherapy will be offered in that area, in



1 the medical office building. And to the extend
2 that Dr. Cawley testified and my discussions
3 with Ms. Bacick, were if those other services
4 are needed, those will be offered as well.

5 Q: But those services were available -- known
6 about and available to MUSC back in -- as far
7 back as 2014, but they didn't include it in the
8 2017 CON application, right?

9 A: They didn't specifically identify those
10 services. We did specifically identify that we
11 weren't going to initially offer SBRT, but that
12 we would pursue appropriate approval in the
13 future to do that. And then, as you heard Dr.
14 Cawley say, HDR, if that's something that's
15 needed, then it will be provided.

16 Q: Did you serve in the capacity as a healthcare
17 planner for any party in a CON contested case
18 involving Grand Strand and CRCC when both
19 entities applied for a linear accelerator in
20 Horry County?

21 A: No.

22 Q: Are you aware of there being a linear
23 accelerator in Loris, South Carolina?

24 A: I'd have to check the Health Plan. Off the top
25 of my head, I am not. But they -- they keep



1 applying. I don't know if they ever got one or
2 not.

3 Q: Okay. I was just curious. Let's go to --
4 before we go to this, we looked at Mr.
5 Sullivan's, I guess, tally of treatments per
6 linear accelerator. I believe it was for
7 fiscal year 2018. Do you recall that?

8 A: Yes.

9 Q: And you would agree with me that the SBRTs for
10 2018 at the Mt. Pleasant Center was less than
11 one percent, wasn't it?

12 A: Eight treatments I think, yeah.

13 Q: Now, I believe you reiterated this in your
14 testimony today, but you don't have a bright
15 line definition of what sufficient volume means
16 in terms of the Health Plan capacity standards
17 for linacs, correct?

18 A: Right.

19 Q: Okay. And as far as you know, the Department
20 doesn't either, right?

21 A: Correct.

22 Q: And so, because there's not a uniform standard
23 for what constitutes sufficient volume for the
24 capacity thresholds in the Health Plan, would
25 you agree with me that some applicants may



1 think that performing ten percent of their
2 total treatments as IMRT may be sufficient
3 volumes, while other applicants or operators
4 who provide 50 percent may think that's a
5 sufficient volume?

6 A: Yes.

7 Q: Now, I think maybe we can avoid having to put
8 it up, but it was, I believe, Respondent's 9,
9 that was slides you did for project review
10 criteria, correct? Do you remember those?

11 A: Not really.

12 Q: Yeah. But Mr. Dayhuff actually put the slide
13 up. It said that Roper wanted to increase its
14 capacity thresholds on its linear accelerators,
15 right, because it provided IMRT, which it
16 thought in a sufficient volume to justify an
17 increase in those capacity thresholds I believe
18 from -- or decrease, excuse me, from 7,000 to
19 5,000, right?

20 A: Yes.

21 Q: Okay. And I think your response was that's not
22 enough because that's lower than the national
23 averages, right?

24 A: Yes.

25 Q: Okay. But would you agree with me that the



1 Department actually ended up letting them do
2 that?

3 A: I'd have to go back and look. I mean, I think
4 what's important is -- I'd have to look at the
5 current Health Plan -- and what sort of what I
6 would call a C change in the current Health
7 Plan is everybody has low capacity now. So,
8 DHEC went back and changed everyone's capacity
9 in the Health Plan. I think there's only two
10 providers in the 2019 Health Plan that have a
11 capacity of 7,000.

12 Q: Okay. And so my understanding though is that
13 DHEC allowed Roper to recognize their units at
14 5,000, so they could get the benefit of the
15 lower capacity, which would then allow them to
16 apply for a new CON -- I mean, for a new linac
17 under Standard 6; is that right?

18 A: You know, I'd have to go back and look at their
19 decision. I recall Roper making the argument
20 -- I
21 think at one point they abandoned it saying,
22 well, it doesn't matter, we're still over, so
23 you can approve us.

24 Q: Okay. But you still -- your response was 20 to
25 25 percent was too low for that particular --



1 on that particular -- on those particular units
2 to justify that lower capacity. That's fair,
3 right?

4 A: For IMRT, based on my experience with the
5 Department, yes.

6 Q: Okay. Would you agree with me that most people
7 who end up receiving radiation therapy,
8 generally speaking, do not self refer
9 themselves to a radiation oncologist?

10 A: I don't know how -- I'm not sure how you're
11 defining most people. I know a number of
12 people do.

13 Q: Okay.

14 **MR. THOMAS:** Beg The Court's indulgence, Your Honor.
15 Since I deposed Mr. Levitt twice, I have a few
16 transcripts here.

17 Q: All right, Mr. Levitt. So, I asked you the
18 question about the fact that most people don't
19 end up self referring. Can you turn to page 15
20 of your deposition? And I'll read question,
21 starting with line 11 on page 15. Are most
22 people who end up receiving radiation
23 therapies, do they self -- do they self refer
24 themselves to a radiation oncologist? What was
25 your answer?



1 A: They can, but generally no.

2 Q: Okay. Generally speaking, people don't self
3 refer themselves to a radiation oncologist, do
4 they?

5 A: Well, that's a different question. I mean, so
6 you're asking sort of the inverse. So, my
7 question was, I'm not sure how you're defining
8 most people. But as I said in my deposition,
9 as I said here, some people do refer
10 themselves. So, I don't know how you're saying
11 most people.

12 Q: Well, because my first part is, are most people
13 who end up receiving radiation therapies, do
14 they self refer themselves to their radiation
15 oncologist? You said they can.

16 A: Right.

17 Q: But generally no.

18 A: Right. But then what you asked me today was do
19 most people self refer. So, I'm answering it
20 the same way.

21 Q: All right. I'll let the record speak for
22 itself. All right. Now, on the CON
23 application for this project, MUSC relied on
24 fiscal year 2015 and 2016 to show compliance
25 with Standard 7, correct?



1 A: Yes.

2 Q: Okay. Now, you would agree with me that fiscal
3 year 2015 had been reported in the official
4 MUSC JAR, right?

5 A: Yes.

6 Q: But the CON application used internal data for
7 fiscal year 2016, right?

8 A: Because the JAR wasn't due yet.

9 Q: Right.

10 A: So, we hadn't submitted the JAR.

11 Q: So, the answer is yes, they relied on internal
12 data for fiscal year 2016, right?

13 A: Well, all data is internal data. The JAR data
14 is internal data. So, we hadn't submitted the
15 JAR, so we footnoted it as internal data,
16 because the JAR hadn't been submitted yet. And
17 then in project review, once the JAR was
18 submitted, we footnoted it as JAR data.

19 Q: Okay. Fair enough. And would you agree with
20 me, Mr. Levitt, that at the time MUSC applied
21 for the project we're all here today about in
22 May of 2017, they would have had access to
23 calendar year 2016 linac treatment volume data?

24 A: Yes.

25 Q: Okay. And they would have had access to



1 rolling 12-month treatment volume data through
2 April 2017 as well, wouldn't they?

3 A: Yes.

4 Q: In fact, for this trial I believe you even said
5 it. MUSC was able to supply its actual
6 treatment data through calendar year 2018 for
7 this hearing that started on January 14th,
8 right?

9 A: Yes.

10 Q: Okay. Let's go to Exhibit T dash -- page 76.
11 If you want to look at the binder there, David
12 -- or Mr. Levitt, it is the top one with the
13 yellow.

14 A: Which exhibit?

15 Q: It's going to be Exhibit 6. And first of all,
16 Mr. Levitt, is it your understanding this
17 application was applied for in February of
18 2015?

19 A: I don't know if there's a date on here, but
20 that sounds about right. It was during that
21 online version, which was the first three
22 months of the year, so yeah.

23 Q: There's a date on the first page of the online
24 application that says 2/2/2015, was my
25 understanding of when it was applied for. And



1 do you remember it being about that time when
2 Sam Phillips kind of instituted the online
3 application process?

4 A: Yeah. Like I said, I don't know if it was
5 submitted on 2/2 or printed on 2/2, but that's
6 about the time we submitted it, early 2015.

7 Q: Okay. And you did what is kind of somewhat of
8 a need analysis for this application, right, at
9 Petitioner's 6, starting on page, I believe,
10 74, if you look at the bottom, not the Bates
11 number, but the bottom of the page there. Did
12 you draft this?

13 A: Yes.

14 Q: Okay. Now, if you look at page 76 for me. And
15 at the top there's a Figure 1 that says MUSC
16 Radiation Therapy Capacity. Do you see that?

17 A: Yes.

18 Q: And what MUSC chose to use in this application
19 for the past two years to show compliance with
20 Standard 7 was JAR data from 2012 and 2013,
21 right?

22 A: Right. Those would be the two most recent.

23 Q: Okay. Now, at the time MUSC applied, sometime
24 in 2015, February-ish, the data that it was
25 using to justify its compliance with Standard



1 7 was over 18 months old, right?

2 A: Roughly.

3 Q: Okay. Because fiscal year 2013 ends in June
4 2013, right?

5 A: Yes.

6 Q: Okay. And MUSC would have had access to fiscal
7 year 2014 treatment volume data in February of
8 2015, wouldn't they?

9 A: I'm sorry. Say that again.

10 Q: MUSC would have had access to fiscal year 2014
11 data for linear accelerator treatments in
12 February of 2015, wouldn't they?

13 A: Yes.

14 Q: Let's go to Respondent's 11, if we could. I'm
15 going to try to get it up on the board here, so
16 you don't have to flip in the notebooks. All
17 right. I think you'll recognize this.

18 **MR. THOMAS:** Can we pull out, VickiLynn ...

19 Q: If you can read it, Mr. Levitt, then that's
20 fine, but what would have been the fiscal year
21 rolling -- the fiscal year 12-month capacity or
22 utilization there for June 2014?

23 A: I can't read it because of the page ---

24 **MR. THOMAS:** Can you pull it out there?

25 A: If you could take the page breaks off, I could



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1 read it. But the word page one is covering it.
2 Q: And I may have to. I may have to use -- I
3 thought we could pull it out with this
4 software, but I don't think we can. So, let's
5 go to Respondent's 11 here. I'll just hand
6 that to you.

7 MS. MITCHELL: That's a native.

8 MR. THOMAS: Well, that will explain it.

9 MS. MITCHELL: We can do it with my exhibit.

10 MR. THOMAS: I think I can just ask Mr. Levitt to
11 read it.

12 Q: For fiscal year 2014 what was the 12-month
13 total capacity or utilization for MUSC?

14 A: I don't know. I'd have to look at the JAR or
15 ---

16 Q: Doesn't this say it right here? Doesn't it say
17 78.6?

18 A: I can't quite read it, because that word page
19 one is in the way. I mean, if it says 78.6, I
20 guess that's what it says.

21 Q: All right. Well, this is pretty important, so
22 we're going to have to get this one. I am
23 going to hand you from my notebook -- I also
24 had to make it bigger.

25 A: Yeah. For June of 2014, 78.6.



1 Q: Okay. Thank you. And so it wouldn't have --
2 if MUSC used the fiscal year 2014 data,
3 internal data, which maybe a JAR wasn't ready
4 yet, it wouldn't have been able to show
5 compliance with the 80 percent for each of the
6 past two years, correct?

7 A: Not based on that time frame, no.

8 Q: And rounding wouldn't have helped either,
9 right?

10 A: On that time frame I don't think so, no.

11 Q: Okay.

12 A: I guess it depends on how you round.

13 Q: And MUSC -- several of the Respondent's
14 exhibits were put up today, but two periods
15 that certainly were absent in terms of
16 satisfying that 80-percent threshold for
17 certain 12-month periods were the 12-month
18 period ending in December of 2016, correct?

19 A: I don't remember the numbers, but if it was
20 below 80 percent, then yes.

21 Q: Okay. And did you recall if the rolling 12 up
22 to April 2017, if you ...

23 A: I don't recall. I'd have to look at the ...

24 Q: Okay. But do you remember if those time
25 periods were on your exhibit?



- 1 A: Which time periods?
- 2 Q: The calendar year 2016 and the rolling 12, May
- 3 2016 to April 2017.
- 4 A: Yes. Those would have been on there.
- 5 Q: No, no, no. I mean, the exhibits that we
- 6 looked at today for the time periods that would
- 7 have satisfied the 80-percent threshold.
- 8 A: I'm sorry. Maybe I don't understand your
- 9 question. Those -- didn't you ask me if those
- 10 time periods are on my spreadsheet? And they
- 11 are.
- 12 Q: I didn't mean the spreadsheet. The exhibits
- 13 that we looked at ---
- 14 A: Oh, the ---
- 15 Q: --- that showed compliance with the 80-percent
- 16 threshold, specific time periods that would
- 17 have showed compliance.
- 18 A: For the 2015 CON application?
- 19 Q: No. For the 20 -- for the CON application
- 20 we're dealing with today.
- 21 A: No, it's in ...
- 22 Q: It's not in compliance?
- 23 A: It's not in the application.
- 24 Q: Never mind.
- 25 A: Isn't that what you asked me, is that data in



1 the application?

2 Q: No. Could you go to Petitioner's 11, please.
3 Sitting here today, do you know if the calendar
4 year 2016 data complied with the 80-percent
5 threshold of the State Health Plan?

6 A: I think we -- the calendar year?

7 Q: Yes.

8 A: I think we looked at that.

9 Q: Right.

10 A: And it didn't.

11 Q: Okay. And the rolling 12 didn't either, right?

12 A: I'm not sure what you mean by rolling 12.

13 Q: Twelve months from May 2016 to April 2017. So,
14 it would have been the 12-month period
15 immediately preceding the monthly application
16 was submitted to the Department.

17 A: Well, yes. It would have been less than 80
18 percent.

19 Q: Okay. And that would have been the most
20 immediate time period that DHEC -- that MUSC
21 could have presented to DHEC for the preceding
22 12 months for the application, correct?

23 A: At the time we submitted the application, yeah,
24 I think -- yeah, April would have been
25 available, so yeah, at the time we submitted



1 the application.

2 Q: Let's talk a little bit about rounding. Is it
3 your testimony that rounding would be
4 appropriate and that anything above 79.5 should
5 be recognized as 80 percent?

6 A: I think generally yes. I mean, I'd have to do
7 the math and it would depend on the situation.
8 You know, in this case it's a few treatments.

9 Q: Okay. And that's what I'm trying to -- I'm
10 trying to get for the record here, in your
11 opinion, what is the lowest number that can be
12 rounded up ---

13 A: Yeah.

14 Q: --- to get to 80 percent?

15 A: Yeah. I don't think that there is a -- again,
16 just like there's not a bright line definition
17 for sufficient volume, I'm not saying that
18 there's a specific number that gets rounded.
19 It's taken in the totality of the application,
20 the situation of the application, the order of
21 magnitude. So, there's a lot of variables that
22 you should consider when determining whether or
23 not something should be rounded or not.

24 Q: Standard 7 considered one, right, a minimum of
25 80 percent. It doesn't talk about the order of



1 magnitude. It doesn't talk about, you know,
2 how many patients that may be. It doesn't talk
3 about anything subjective like you were talking
4 about. It just says a minimum of 80 percent,
5 right?

6 A: Well, it doesn't, but that's a part of health
7 planning. So, it's the underlying concepts
8 that resulted in that standard. So, I think
9 it's important that it's implied and it's
10 contained in there. And it's not a
11 mathematical rope formula, turn the crank and
12 the decision's made.

13 Q: So, in your opinion that number, that can be
14 rounded, could be different for different
15 outcomes, correct?

16 A: Depending on the circumstances, yes.

17 Q: Okay. How about 79.49, David, does that get
18 rounded up to 80?

19 A: It would depend on the circumstances.

20 Q: So, you would agree with me that, under your
21 standard, 80 percent -- minimum of 80 percent
22 is no longer the floor for Standard 7. It's
23 something that's a little fuzzy, but it's just
24 -- going to be just under 80 percent, right?

25 A: Well, it could be. What I'm saying is, the



1 standard doesn't say 80.0000. It says 80 with
2 no decimals. So, you need to look at the
3 situation. And specifically in this case it's
4 eight treatments, less than one a month for a
5 year, less than half a patient. I think that
6 indicates that we're at the same capacity we
7 would be if we were at 19,201 treatments.

8 Q: Okay. So, the difference between 79.5 and
9 79.49 percent, with respect to the capacity
10 threshold for a center that does 20,000
11 treatments a year, it's two patients isn't it?

12 A: Treatments.

13 Q: Yeah, two treatments. Isn't that right?

14 A: Mathematically, yes.

15 Q: So, if we go down another hundredths spot,
16 that's another two treatments, right?

17 A: Yeah. But I think you need to look at it in
18 the totality. So, the question is, is it
19 reasonable to assume -- and I gave all those
20 examples of DHEC rounding in the Health Plan,
21 DHEC rounding in their decisions, DHEC rounding
22 by the exact amount I'm suggesting be rounded
23 in this case, .03 percent. So, there could be
24 an infinite number of scenarios, but each one
25 is taken, just as every CON application is.



1 taken, on a case-by-case basis.

2 Q: So, what if it's a flat 79 percent, just a flat
3 79 percent, but you can show that, because you
4 do so many treatments in your program, that one
5 percent is negligible, it's a patient, it's one
6 patient who's getting treated for prostate
7 cancer, can I make an argument if I'm at 79
8 percent?

9 A: I think you're free to make an argument if
10 you're at 50 percent.

11 Q: Does that comply, in your opinion, with the
12 State Health Plan, with the Standard 7? Do I
13 at least get past Standard 7, so I can start
14 talking about community need, access, financial
15 feasibility, and that type of thing?

16 A: You have to look at the totality of the
17 application. So, you can't take a hypothetical
18 without all of the context.

19 Q: Okay. Now, I just want to understand your
20 testimony. With respect to the phrase each of
21 the past two years in Standard 7, I'm going to
22 break that down, unpack it, as I hear certain
23 people say. For the 2015 -- or excuse me, for
24 the 2017 application, is it your testimony that
25 MUSC could have gone back and used calendar



1 year 2012 and calendar year 2013 to show
2 compliance with the 80-percent threshold
3 standard?

4 A: No.

5 Q: Okay. That helps.

6 A: Good.

7 Q: How far back, in your opinion, should you be
8 able to go?

9 A: Again, it depends on the situation and the
10 availability of the data. So, I don't have a
11 defined time period. So, I think if the data
12 shows that you're well utilized and you need
13 additional resources, I think you could present
14 that argument to DHEC and ask for approval for
15 that service.

16 Q: So, if there's an intervening 12-month period,
17 say between -- in the 2015 application MUSC
18 submitted, I believe MUSC relied on fiscal year
19 2012 and 2013, right, to show each of the past
20 two years compliance with the State Health
21 Plan, right?

22 A: Yes.

23 Q: Okay. But there was an intervening year,
24 fiscal year 2014, that it chose not to use,
25 that showed that it was not in compliance with



1 the State Health Plan, correct?

2 A: Yes.

3 Q: Okay. So, in that situation you're fine to
4 overlook at least one intervening year, as long
5 as there's another year that's pretty close by
6 in the past, right?

7 A: Well, no, I think in that situation we applied.
8 We didn't have the market data, so we didn't
9 know if there was need in the market from a
10 market perspective. We had our internal data.
11 We had the JAR data. So, we were going off the
12 JAR data and that's what they did. I think we
13 could have looked at different time periods,
14 but we didn't.

15 Q: But if you had used more time period, fiscal
16 year 2014, that would have been a nonstarter
17 for the Department in terms of compliance with
18 Standard 7, right?

19 A: Right... But I think there were other time
20 periods during that time frame when you asked
21 me about the 2012 and all those other dates,
22 there are other time periods where we did
23 comply. We could have used those.

24 Q: So, going even further back from 2013 and 2012?

25 A: No. I think there were some times in '15 where



1 we exceeded it.

2 Q: But you applied for the application in February
3 of 2015, right?

4 A: We did.

5 Q: Okay. We talked a little bit about clinical
6 trials. You're not aware of the volume of
7 patients that are in those 300-plus clinical
8 trials at MUSC, are you?

9 A: No.

10 Q: Okay. Are you aware of whether or not MUSC is
11 the originating facility for the clinical
12 trial? And by that I mean, it was started
13 there and went to the IRB there. Or are those
14 383 clinical trials trials that include the
15 ones that MUSC, like a MUSC researcher, started
16 at MUSC, but also may be one at Sloan Kettering
17 that MUSC can feed patients to?

18 A: It is the latter..

19 Q: Do you know how many of those 300-plus clinical
20 trials were actually initiated by researchers
21 at MUSC sitting here today?

22 A: I don't. I don't see the value of that,
23 though.

24 Q: Is it less than 20?

25 A: I don't know.



1 Q: Okay. Now, as a health planner, I think when
2 I deposed you, you stated that you would expect
3 the most commonly treated cancers on MUSC's
4 linacs would be brain, prostate, breast, and
5 lung, correct? Do you remember that?

6 A: Yes.

7 Q: Okay. As far as you know, there's not going to
8 be an anesthesia team at Nexton, correct?

9 A: Not that I'm aware of.

10 Q: Okay. There's not an ASC currently at Nexton,
11 an ambulatory surgery center currently at
12 Nexton, is there?

13 A: Not yet.

14 Q: Okay. Are you aware of plans for one?

15 A: I think there was one that was applied for a
16 number of years ago that was withdrawn, but I'm
17 not specifically aware of anything eminent.

18 Q: Okay. Would it be fair to say that you do not
19 know how many patients, who utilize MUSC for
20 its radiation therapy services, do so based on
21 its designation as an NCI facility?

22 A: That's unknowable. Sure.

23 Q: Okay. Same question, but for US News & World
24 Report?

25 A: Right, same answer.



1 Q: And you would agree with me that, at this time,
2 you don't know what radiation therapy services
3 will be offered at MUSC's Nexton site that will
4 not be offered at Trident's linear
5 accelerator's cancer center on its campus seven
6 miles away; is that fair?

7 A: Yes.

8 Q: Okay. Now, I'm going to put up a
9 demonstrative. It's pretty basic. Just a
10 couple of questions about this, Mr. Levitt. In
11 terms of the population from 2010 to 2017, I
12 mean, there was some growth in the service area
13 for Berkeley, Charleston, Colleton, and
14 Dorchester County, right?

15 A: Yes.

16 Q: Okay. And roughly the population went from
17 706,361 to 813,442 or about a 15.2 percent
18 increase; is that fair?

19 A: If that's what the numbers show, yes.

20 Q: Okay. But the radiation therapy treatments in
21 the service area actually decreased over that
22 seven-year period, right?

23 A: That's what this data shows, yes.

24 Q: Okay.

25 A: What I don't know is on that 2017, what's in



1 the 46077.

2 Q: It's the number of treatments that was
3 reported, correct?

4 A: Well, that's what it says, but I don't know if
5 that's from the JAR. I mean, I see the source
6 is MUSC discovery and JAR, but I don't know if
7 that was corrected. I know all of Mr.
8 Sullivan's exhibits in his deposition didn't
9 have the right number for MUSC.

10 Q: Right. Because -- that's because MUSC gave us
11 the wrong number, correct?

12 A: No. We didn't give it to you. It was on the
13 JAR. It was incorrect on the JAR.

14 Q: Right. And so it wasn't Mr. Sullivan's
15 mistake. He reported what was on the JAR. And
16 then later, when we got the new revised number
17 for fiscal year 2016 about a month ago, that's
18 when his exhibits had to be changed to reflect
19 MUSC's correct numbers. Is that a fair
20 statement?

21 A: You know, I don't know when you got the data.
22 But I know at his deposition, after you got the
23 data, it had the wrong numbers on it.

24 Q: But you agree with me, you assumed, going
25 forward, growth in the next six or seven years,



1 from 2019 through, gosh, I guess 2022, if I
2 recall correctly, in the number of cancer
3 treatment, correct?

4 A: Yes.

5 Q: All right. You would agree with me that one
6 reason that the number of treatments -- well,
7 let me back up and provide foundation. I think
8 you went over a slide with Mr. Dayhuff that
9 showed that the number of cancer patients is
10 actually increasing in this service area,
11 correct?

12 A: As reported on the JAR, yes.

13 Q: Okay. And that, if the number of patients is
14 increasing, but the number of treatments has
15 remained the same, that means that the number
16 of treatments per patient has decreased
17 somewhat over the past seven or eight years,
18 correct?

19 A: As reported on the JAR, yes.

20 Q: Okay. And you would agree with me that linear
21 accelerator technology over the last ten years
22 has improved to a fairly good degree, correct?

23 A: Yes.

24 Q: And one of the improvements includes speed in
25 terms of treatment time, right?



1 A: Yes.

2 Q: Now, would you agree with me that -- my
3 understanding is that there's going to be one
4 radiation oncologist staffed at Nexton. Is
5 that right?

6 A: One FTE.

7 Q: Yeah. And as far as we know, that person
8 hasn't been hired yet, based on Dr. Jenrette's
9 deposition, correct?

10 A: Right. Well, it's not a person, it's an FTE.
11 So, that means that there will be someone there
12 40 hours a week. It doesn't necessarily mean
13 it's the same person there 40 hours a week.

14 Q: It's going to be a person though, isn't it?

15 A: Or people, one person every day for five days
16 could be five people.

17 Q: Okay. Do you know if anybody on MUSC's
18 radiation therapy -- as radiation oncologists,
19 are they subspecialties in every single cancer
20 speciality for radiation oncology?

21 A: I think that's a question for Dr. Jenrette.

22 Q: I'm asking you if you know.

23 A: I don't know every single -- you know, I don't
24 know how you're defining every single cancer
25 specialty. But they have a number of



1 specialists.

2 Q: Okay. Do you know if their radiation
3 oncologists subspecialize in certain areas,
4 such as prostate or, you know, GI or
5 endometrial? Do you know?

6 A: Yes.

7 Q: Okay. Do you know if they subspecialize in all
8 of those?

9 A: Those three you just listed?

10 Q: Yeah. If one person subspecializes in the
11 major cancer areas; head, neck, and throat.

12 A: No, I don't. I think each has a different
13 specialist.

14 Q: Okay. So, you would agree with me that, if a
15 patient that needs a lung treatment goes to
16 Nexton, but the physician, who's on staff that
17 day, is a prostate specialist, they're not
18 going to get the benefit of the subspecialty,
19 are they?

20 A: Well, I think they would, because it's
21 affiliated with the Hollings Cancer Center.
22 So, as we said, it's one FTE. So, Mondays
23 could be lung day, Tuesdays could be prostate
24 day, Wednesdays could be head and neck. So,
25 the specialists rotate up there. They set up



1 a treatment plan. They have a radiation
2 oncologist fulfill that plan.

3 Q: Is that your understanding of how they're going
4 to set up Nexton?

5 A: That's how they can set it up. That's how
6 they've done it at other centers. I know that
7 radiation oncologists rotate through the
8 Tideland's location and treats patients there.

9 Q: Who rotates through Tideland's?

10 A: The MUSC radiation oncologists.

11 Q: Which ones?

12 A: Many of them. Dr. Jenrette's ---

13 Q: Name two, other than Dr. Jenrette.

14 A: Dr. Jenrette I know has gone up there. And I
15 can't think of the other name.

16 Q: David, sitting here today, do you know what the
17 rotation schedule is at Tideland's for the
18 different physicians at MUSC?

19 A: No, Will, I don't.

20 Q: Okay. Would you agree with me that, when the
21 5,000 treatment threshold for a linear
22 accelerator unit that performs IMRT in
23 sufficient volume was set a number of years
24 ago, it took longer to treat those patients
25 with IMRT?



1 A: Yes.

2 Q: And you're not aware of anything contractually
3 that prevents an MUSC physician from referring
4 to a Trident radiation oncologist, are you?

5 A: Contractually? No.

6 Q: Okay. And you heard from Mr. Clements and Dr.
7 Williams that they receive referrals from MUSC
8 and Roper physicians to Trident's radiation
9 therapy center each and every year, correct?

10 A: I heard a very low number. Yes, I heard they
11 get a very low number.

12 Q: But they get referrals, right?

13 A: A very low number of referrals, yes.

14 Q: Okay. Now, with respect to access, MUSC's
15 position, as I understand, is that it desires
16 to improve access for its patients, who would
17 have otherwise traveled downtown for radiation
18 therapy from Berkeley and Dorchester Counties,
19 correct?

20 A: Yes.

21 Q: All right. Now, you would agree with me that
22 MUSC, its kind of first foray off campus in
23 this service area was in the East Cooper area
24 back in, I believe, 2005; is that right?

25 A: In this service area for linear accelerator



1 services, you mean?

2 Q: Correct.

3 A: That was the first off-campus linear
4 accelerator, yeah. And I think it was before
5 2005. They've opened in 2005..

6 Q: Okay. In fact, you and I may have even worked
7 on that.

8 A: I believe we did, together, on the same side,
9 for MUSC.

10 Q: Now, you would agree with me, sitting here
11 today, based on our knowledge of the service
12 area, that the population of Berkeley and
13 Dorchester Counties dwarfed the population of
14 East Cooper back in 2005?

15 A: Yes, it was smaller.

16 Q: Now let's talk about adverse impact a little
17 bit. It's your understanding that MUSC is
18 going to put certain types of oncologists or
19 oncology-related specialties in close proximity
20 to the Nexton linear accelerator for MUSC, fair
21 statement?

22 A: Yes.

23 Q: Okay. And you're aware that MUSC has an
24 arrangement whereby no other providers can
25 actually place physicians of the type MUSC



1 plans to locate in the Nexton MOB area,
2 correct?

3 A: Yes.

4 Q: Mr. Dayhuff asked you a few questions about
5 medically underserved groups. And I believe
6 your -- you indicated that most of the people
7 who get radiation therapy have healthcare
8 coverage, correct?

9 A: Yes.

10 Q: Okay. Did you look at other radiation therapy
11 CON applications to see if 2.54 percent of
12 gross revenues, in terms of indigent care, was
13 about the same as in other applications?

14 A: I didn't specifically look at that, but that
15 seems to be a reasonable number in my mind.

16 Q: Okay. Can you go to -- I want to go to P 37 if
17 we could, Petitioners 37.

18 MR. THOMAS: I don't have that much more, Your
19 Honor, so -- I don't think. I will qualify it
20 real quick. This isn't a native file. We can
21 actually pull this up.

22 Q: All right. On this first page -- can you go to
23 dash 002? David -- I mean, Mr. Levitt, this is
24 MUSC -- or MUHA's Statement of Net Position for
25 fiscal year 2018.



1 **MR. THOMAS:** Can you scroll down a little bit, Ms.
2 Mitchell?
3 **Q:** Would you agree with me that the MUSC's total
4 net position in fiscal year 2018 was negative
5 661 million dollars?
6 **A:** That's what this says.
7 **Q:** Okay. And the total liabilities more than two
8 billion dollars?
9 **A:** Well, yeah. I mean, it's a balance sheet, so
10 they have two billion in assets also.
11 **Q:** Okay. But the net position is negative 661
12 million, right?
13 **A:** In that year.
14 **Q:** And let me ask you these questions. You may
15 remember from your deposition. If you don't,
16 we can reference. I'm just trying to move us
17 along. Do you recall that some of the
18 operation expenses notes from the unaudited
19 financial statements for MUSC show that
20 radiation oncology expenses were up 2.2 million
21 dollars?
22 **A:** No, I don't remember that.
23 **Q:** Okay. Let's see here.
24 **MR. THOMAS:** Let's go to operating expenses. Scroll
25 down. All right. Here we go.



1 Q: Under operating expenses in the notes, last
2 star right there, radiation oncology expenses
3 are 2.2 million and 14.7 percent higher.
4 Actually it's got one of the reasons that it
5 ended up might be expenses for MUSC were higher
6 than I believe they budgeted.

7 A: I mean, it's hard to -- I can read sentences,
8 but I think you have to take it in the
9 totality. That's what it says, but I guess
10 it's under operating expenses.

11 Q: Well, the top line there, compared to last
12 fiscal year salaries and benefits increased
13 32.1 million or 5.6 percent, right?

14 A: Sure. Well, radiation -- it says radiation
15 oncology went up 2.1 percent. But I think you
16 need to look at the revenues. Did that go up?
17 You know, maybe it went up by 15 percent. So,
18 you know, obviously expenses went up, but
19 revenues may have gone up. So, I mean,
20 factually that's what it says, but you can't
21 pull line items out of the audit and say, what
22 does it say? And I can read it. But that's
23 not what it means.

24 Q: Well, I was going to ask you a question. Do
25 you know why they increased 14.7 percent?



1 A: What year is this?

2 Q: Fiscal year 2018.

3 A: Well, volume was up. So, that would be some
4 account for it. I don't know if they bought a
5 -- you know, they bought additional machines or
6 equipment or services or if they hired somebody
7 or if they -- I mean, you know, there could be
8 lots of reasons why the expenses are up.

9 Q: Okay. And one of the things that MUSC was
10 required to do in fiscal year '18 was it was
11 required to start carrying pension expenses on
12 its books, correct?

13 MR. THOMAS: Just objection noted. We can go with
14 that. I mean, aren't you going to make the
15 same objection ---

16 MR. DAYHUFF: Yeah. I'm going to renew my objection
17 on this line of questioning. Not raised below.
18 No one's opined this is not financially
19 feasible. But I just want to make sure that
20 that objection's noted, Your Honor.

21 THE COURT: I understand.

22 MR. THOMAS: And just for the record -- you know,
23 you never know if it goes up on appeal, if this
24 issue is one. Again, for the record, there is
25 no possible way that Trident could have known



1 about the financial feasibility of a project
2 that was approved in May of 2017 -- or excuse
3 me, in November of 2017, because the unaudited
4 financial statements for fiscal year 2018, so
5 their financial position has changed
6 incredibly. They went from like a 45 or 50
7 million dollar net operating income to a
8 negative 2.8 million dollar income. That's
9 pretty significant. That's a 50 something ---

10 **MR. DAYHUFF:** I don't want to argue about this.
11 They have made this type of assertion in other
12 cases. They usually talk about the children's
13 hospital. They create a long list of projects
14 and say this is somehow relevant to a
15 particular project on review. So, I certainly
16 don't dispute that newer audits come out, but
17 the problem is, you've got to raise these
18 claims below. You've got to have an expert
19 who's willing to opine that this somehow
20 affects the ability to do a nine million dollar
21 project. So, that's the basis of my objection,
22 Your Honor.

23 **THE COURT:** Noted.

24 **Q:** All right. Just for the record, Mr. Levitt,
25 are you familiar with GASBI?



1 A: Yes.

2 Q: Okay. And GASBI started requiring government
3 agencies to carry pension liabilities on their
4 books, correct?

5 A: Yes.

6 Q: And prior to 2018 they didn't require that, did
7 they?

8 A: They didn't.

9 Q: If we look at -- if we can go back to the
10 income statement. And I think that was --
11 let's try P 37-004. Yeah.

12 A: That's the balance sheet.

13 Q: Yeah, we're getting there. Yeah. This is the
14 one that's got the comparative period. That's
15 what I need you to see. So, the actual
16 operating expenses for MUSC at fiscal year 2018
17 was -- total operating expenses was 1.445
18 billion dollars or so? Have I got that right?
19 Maybe we can pull it out. There we go. So,
20 total operating expenses 1.44 -- 1.4 billion?

21 A: Yeah. I mean, like I said, I can read these
22 numbers and agree they speak for themselves.
23 But you said I'm not allowed to explain
24 anything, so that's what it says, 1.45 million
25 (sic).



1 Q: That's why you have counsel. He can totally in
2 re-direct go into these areas that I'm bringing
3 up. But in 2019 -- scratch that. You gave
4 some testimony on -- about the pro forma today,
5 correct?

6 A: Yes.

7 Q: Okay. And about the financial feasibility of
8 the project, correct?

9 A: I did.

10 Q: Okay. Would you agree with me that, at least
11 at the time you were deposed, you had not
12 spoken to Mr. John Cooper, who is the person
13 who signed off on the pro formas in the CON
14 application?

15 A: Correct.

16 Q: In fact, he's retired and gone from MUSC; isn't
17 that right?

18 A: He's retired, correct.

19 Q: Okay. And at the time I deposed you, you
20 didn't know what payer mix was that MUSC had
21 assumed in the pro forma act, did you?

22 A: I knew it was the same payer mix as the overall
23 radiation oncology.

24 Q: So, the overall radiation oncology that pulls
25 from all over the State of South Carolina,



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1 including the four-county service area, right?

2 A: Yes.

3 Q: Okay. And you would agree with me that you
4 weren't exactly sure what made up the
5 individual expense line items in the pro forma
6 at the time that I deposed you, right?

7 A: Yes.

8 Q: Okay. You didn't know that the compensation
9 for the radiation oncologist, who was going to
10 staff the Nexton linac center, was nearly half
11 a million dollars, right?

12 A: At the time of my first deposition I did not
13 know that, yes.

14 Q: In fact, you said you'd be shocked if it was
15 400 thousand dollars, correct?

16 A: I probably did say that. Sure.

17 Q: At that time, back in December, you still
18 hadn't seen any work papers underlying the pro
19 formas in the CON application, correct?

20 A: At the time of my first deposition.

21 Q: Right. And with the pro formas, the underlying
22 work papers that, I believe, were the subject
23 in part of your second deposition, those didn't
24 tick and tie with what was in the CON
25 application, did they?



1 A: I did not get the final version, no.

2 Q: Mr. Dayhuff asked you a question about the
3 ability to add project review criteria after
4 the deemed complete letter comes out. Do you
5 recall that?

6 A: Yes.

7 Q: Can you cite an instance for me where you have
8 gone to the Department and asked them to add,
9 not reorder, but add a project review criteria
10 and they didn't?

11 A: Yes.

12 Q: Can you tell me what that is?

13 A: Fort Mill.

14 Q: And that is the Fort Mill Hospital case?

15 A: Yes.

16 Q: And is that the hospital case that was filed
17 back in 2009 or '10?

18 A: I think it might have been before that, but
19 yeah.

20 Q: Okay. Can you tell me another time?

21 A: Not off the top of my head, but it's not
22 uncommon. It was very common to submit
23 suggestions and, as you identified, reordering
24 the criteria to include additional review
25 criteria or to exclude criteria.



1 Q: The one example you can recall today is from 11
2 years ago, right?

3 A: That's one example, yes.

4 Q: Do you know any other examples, sitting here
5 today, that you can cite to me?

6 A: That I can cite to you, no. But as I said, it
7 was very common.

8 Q: Okay. You would agree with me, Mr. Levitt,
9 that the JAR report specifically states don't
10 use ports?

11 A: I think it does, yes.

12 **MR. THOMAS:** Your Honor, if you'd give me five
13 minutes, I could run through my notes and just
14 make sure I don't have any more questions, but
15 I think I'm about done with this witness on
16 Cross Ex.

17 **THE COURT:** Okay. The Court will be at ease for
18 five minutes.

19 (Off the Record)

20 **THE COURT:** Okay. We're back on the record in case
21 number 18-07-0100. Mr. Thomas.

22 **MR. THOMAS:** I have no more questions for this
23 witness, Your Honor.

24 **THE COURT:** All right. So ---

25 **MR. DAYHUFF:** I could do my Re-Direct in one minute.



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1 THE COURT: One minute?

2 MR. DAYHUFF: One minute.

3 MR. THOMAS: I'm going to put him on the clock.

4 MR. DAYHUFF: Two minutes.

5 THE COURT: We'll give you two and a half. All
6 right. Re-Direct, Mr. Dayhuff.

7 MR. LEVITT - REDIRECT EXAMINATION BY MR. DAYHUFF:

8 Q: Mr. Levitt, there was some questioning you
9 received about our funding letter in the CON
10 application. Do you recall that?

11 A: Yes.

12 Q: And I think the questioning was along the lines
13 of you don't know which of the various options
14 were going to be chosen to ultimately fund this
15 project. Do you recall that?

16 A: Yes.

17 Q: In your experience, how common is it for
18 funding letters to include multiple and various
19 potentials for funding for a project?

20 A: It's very common. I have some corporate
21 clients that it's a requirement. They can't
22 put how they're going to fund it, because they
23 don't know until the project is actually
24 funded.

25 Q: All right. I was going to ask you why do they



1 maintain that flexibility in the funding letter
2 as to the manner of funding?

3 A: Because of that. Depending on the point in
4 time, both the position of the company and the
5 markets, depending on the markets, they may
6 determine the most beneficial source of funds
7 for the project at the time they actually have
8 to write the check and pay for the project.

9 Q: All right. You offered the opinion at DHEC
10 review and during your deposition that this
11 project was financially feasible, correct?

12 A: I did.

13 Q: Have you changed your mind?

14 A: I have not.

15 **MR. DAYHUFF:** No further questions.

16 **THE COURT:** All right. Mr. Levitt, run as far as
17 fast as you can.

18 **MR. LEVITT:** I will

19 **THE COURT:** Now, as to tomorrow.

20 **MR. WESTBROOK:** Well, since these guys did so good
21 at getting through Mr. Levitt, we've got --
22 tomorrow, we've got Dr. Jenrette and we've got
23 Mr. Sullivan on rebuttal. I would request that
24 we start at 10, just to give Jenrette another
25 hour of sleep tomorrow to get here in the



1 morning.

2 **THE COURT:** All right. The Court will reconvene at
3 10:00 o'clock in the morning.

4 **MR. DAYHUFF:** Your Honor, one other housekeeping
5 issue perhaps. These are the demonstrative
6 exhibits that we referred to today. I know
7 that Mr. Thomas has been handing those up to
8 you. So ---

9 **THE COURT:** Not all of them. I've only got just the
10 one.

11 **MR. DAYHUFF:** Well; and I suppose the question is,
12 if you're retaining those ---

13 **THE COURT:** Well, I take that back. I take that
14 back. I've got demonstrative 1 from Petitioner
15 ---

16 **MR. THOMAS:** I'm happy to take it back.

17 **THE COURT:** Demonstrative 2 and 5. I'll be glad to
18 hand them back or ---

19 **MR. DAYHUFF:** I'm fine either way. If The Court
20 wants them, we would give you ours. If they
21 don't, then we would not expect Trident to
22 submit demonstratives to be kept. But either
23 way is fine with us.

24 **THE COURT:** Then I'll give you your -- back as well.

25 **MR. DAYHUFF:** Fair enough.



1 **MS. BIGGERS:** And, Your Honor, tomorrow Mr. Vito
2 Wicevic, my co-counsel of record in this case,
3 will be appearing in my place at least in the
4 morning.

5 **THE COURT:** Okay. I think you did tell me that. I
6 promise I won't hold that against you or him.
7 One point of clarification, pronounce his name
8 for me one more time.

9 **MS. BIGGERS:** Wicevic.

10 **THE COURT:** Wicevic.

11 **MS. BIGGERS:** Wicevic.

12 **THE COURT:** All right.

13 (Wednesday, January 23, 2019 ended at 5:59 p.m. and
14 reconvened on Thursday, January 24th, 2019 at 1:33
15 p.m.)

16 **THE COURT:** We are back on the record in case number
17 18-07-0100. And, Mr. Westbrook, I believe you
18 have a witness for us this morning.

19 **MR. WESTBROOK:** We do. Thank you, Your Honor. Our
20 next witness for MUSC is Dr. Joseph Jenrette.

21 **COURT REPORTER:** Dr. Jenrette, please state and
22 spell your first and last name.

23 **DR. JENRETTE:** Joseph Jenrette, J-O-S-E-P-H J-E-N-R-
24 E-T-T-E.

25 **JOSEPH M. JENRETTE, M.D.,** having been duly sworn,



1 testifies as follows:

2 DR. JENRETTE - DIRECT EXAMINATION BY MR. WESTBROOK:

3 Q: Dr. Jenrette, good to see you.

4 A: Thank you.

5 Q: We've been eagerly anticipating your arrival.

6 A: Sorry for all the delays.

7 Q: Quite all right. Can you give your name --
8 state your name for the record, please?

9 A: Joseph M. Jenrette, III.

10 Q: And, Dr. Jenrette, you're a physician, correct?

11 A: Yes.

12 Q: What's your area of specialty?

13 A: Radiation oncology.

14 Q: And what is the position you hold at MUSC's
15 Department of Radiation Oncology?

16 A: I'm a physician and chairman of the department.

17 Q: And you're also a professor; is that correct?

18 A: I'm a professor of radiation oncology, yes.

19 Q: All right. Does that mean you have teaching
20 responsibilities?

21 A: I do.

22 Q: Like for example, what?

23 A: Students and residents are in training, I give
24 lectures, talk to them, journeymen sort of
25 program, so that they learn how to do what I



1 do.

2 Q: Okay. And you also provide clinical care, I
3 guess?

4 A: I do. . . .

5 Q: And is that in the area of radiation oncology?

6 A: Yes.

7 Q: How long have you been practicing radiation
8 oncology?

9 A: I've been on the faculty there for 36 years.

10 Q: And let's take a look at --

11 **MR. WESTBROOK:** Dan, if you'd put it on the screen
12 for us MUSC's Exhibit 2.

13 **(Respondent MUSC's Exhibit Number 2 was introduced**
14 **into the record at this time.)**

15 Q: Are you familiar with this, Dr. Jenrette? Is
16 this your CV?

17 A: Yes. I think this is a CV from a few years
18 ago.

19 Q: All right. Is it accurate?

20 A: Accurate up until that time, yes.

21 Q: And that time would be when?

22 A: I think this was accurate up until 2012.

23 Q: All right. So, you, I believe -- first of all,
24 before we get into your CV, you've announced
25 your retirement, right?



- 1 A: I have.
- 2 Q: And when is that event going to take place?
- 3 A: I am stepping down as chairman on June 30th of
- 4 this year and stepping out of the hospital on
- 5 August 31st.
- 6 Q: All right. So, who is going to be the new
- 7 departmental chair?
- 8 A: It's -- there's a national search. We don't
- 9 know yet.
- 10 Q: All right. Okay. Let's go back to your CV and
- 11 walk through this for a minute or two. At the
- 12 bottom -- let's look at the bottom of page one.
- 13 And it says you've been at MUSC. What year did
- 14 you arrive there?
- 15 A: In the department I started out my residency in
- 16 1989.
- 17 Q: But it says ---
- 18 A: 1979. And then I joined the faculty in 1983.
- 19 Q: 1983 as an instructor. And it shows your
- 20 history there. You've worked your way up and
- 21 you've been a professor since -- a full
- 22 professor since how long, since when?
- 23 A: Well, I wouldn't have remembered if this wasn't
- 24 here, since 2003.
- 25 Q: All right.



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1 A: Been a long time.

2 Q: Yeah. And then over on the next page. At the
3 top of the page it says Professional
4 Experience. It talks about positions you've
5 held. Tell me about your history as Chairman
6 of the Department of Radiation Oncology.

7 A: I've been a chairman three different times.
8 First was as acting chairman back in 1989 to
9 1994. And then a permanent chair was hired.
10 And that person was there until about 2003, at
11 which time I was asked to become the interim
12 chairman again. And once again, there was a
13 national search for a permanent chair. And I
14 was selected for that in 2005 by the dean,
15 who's my boss.

16 Q: All right. And it appears, also, from later
17 on, on this page, that you've been involved
18 with MUSC's radiation oncology residency
19 program. Is that correct?

20 A: Yes. Well, number one, as a faculty member,
21 but also for quite a number of years I was the
22 residency director of the program.

23 Q: All right. Now, for the sake of time, let's
24 skip over all of these local professional
25 societies and associations that are listed.



1 But if we go to the next page, which is page
2 three, it lists some national professional
3 associations that you have been involved with.
4 I just want to ask you about one. It says --
5 it's the one highlighted up there. It says
6 2004 to the present RTOG. What does RTOG mean?

7 A: That's a national cooperative clinical trial
8 group called the Radiation Therapy Oncology
9 Group. It's an NCI-sponsored clinical trials
10 program.

11 Q: And it says that you were principal -- or you
12 are principal investigator for MUSC. Is that
13 correct?

14 A: I was until about a year to a year and a half
15 ago. And I relinquished that to another one of
16 my colleagues.

17 Q: All right. And as principal of that,
18 investigator for RTOG, what kind of duties did
19 you have?

20 A: To oversee the quality of the clinical trials
21 program for the RTOG patients, to make sure
22 that we could get through audits from the site
23 visitors, when they would come periodically to
24 look at our data, to help support accrual to
25 clinical trials, working with the cancer



1 registry to make sure that we had all the
2 proper information for patients to go into
3 clinical trials.

4 Q: All right. And let's go onto the next page of
5 the CV, page four. There's a section that says
6 Honors and Awards. Let's just take a brief
7 look at that. It says -- it looks like you had
8 been listed in Best Doctors in America since
9 1998. Is that right?

10 A: Yes.

11 Q: And three different Who's Who lists since 1996.

12 A: Yes.

13 Q: What is -- tell me, what is the Distinguished
14 Professor Award that is given at MUSC? What
15 does that involve?

16 A: I was awarded that about three years ago. And
17 it's the highest award for service that a
18 faculty member at MUSC can receive. It's a --
19 it was a very nice honor and it also comes with
20 a nice \$3,000 prize.

21 Q: All right. Well, that is nice. So, on page
22 five of this CV, from page five to page eight,
23 it lists a number of presentations that you
24 have made on cancer care and radiation
25 oncology. If you'll turn over to page eight.



1 MR. WESTBROOK: Or, Dan, if you'll move us over to
2 page eight.

3 Q: These are numbered. How many such
4 presentations up until 2012?

5 A: It looks like 101.

6 Q: Okay. And have you made any presentations on
7 cancer care and radiation oncology since this
8 CV?

9 A: Yes. There's probably one or two a year, so
10 probably another half a dozen to a dozen.

11 Q: All right. And right after this it lists your
12 peer-reviewed publications. This begins on
13 page eight and goes over to page 11, I think.
14 Let's turn over --

15 MR. WESTBROOK: Dan, if you will scroll up to page
16 11.

17 Q: How many of these peer-reviewed publications
18 are listed?

19 A: Sixty seven at this point.

20 Q: And you're co-author or author on all 67 of
21 these?

22 A: Yes.

23 Q: And they all have to do with cancer care or
24 radiation oncology?

25 A: That is correct.



1 Q: And have you done any since this CV was
2 compiled?

3 A: I think the total number as of right now is
4 about 75.

5 Q: All right.

6 MOTION BY MR. WESTBROOK:

7 MR. WESTBROOK: Your Honor, at this point I'd ask to
8 -- that Dr. Jenrette be qualified as an expert
9 in the field of radiation oncology.

10 THE COURT: Mr. Thomas.

11 MR. THOMAS: Without objection.

12 THE COURT: Without objection -- Mr. -- help me out,
13 again. Mr. Wicevic?

14 MR. WICEVIC: Wicevic.

15 THE COURT: Wicevic..

16 MR. WICEVIC: No objection.

17 THE COURT: I'm sorry.

18 MR. WICEVIC: It's an odd one, so.

19 THE COURT: All right. Welcome aboard.

20 MR. WICEVIC: Thank you.

21 THE COURT: Without objection, Dr. Jenrette is
22 recognized as an expert in the field of
23 radiation oncology.

24 MR. WESTBROOK: Thank you, Your Honor.

25 Q: All right. Dr. Jenrette, where is your



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1 principal office located?

2 A: At the Medical University of South Carolina in
3 Charleston.

4 Q: Is that in downtown Charleston?

5 A: Yes, 169 Ashley Avenue.

6 Q: All right. Is that where the site of the
7 Hollings Cancer Center?

8 A: The Hollings Cancer Center is a separate
9 building. I work in that and the hospital,
10 which is right across a little alley way called
11 Sabin Street. I work in both places, but
12 primarily in the hospital side of our
13 department.

14 Q: And is that where you provide the majority of
15 your radiation therapy treatments?

16 A: Yes.

17 Q: What -- for the radiation oncology department
18 there at downtown in the main hospital and
19 Hollings Cancer Center, what's a typical day
20 like?

21 Q: Well, we begin with didactics in the morning.
22 I usually arrive between 7:30 and 8:00 in the
23 morning. We have didactics. We have -- I, for
24 one, have administrative duties most every day,
25 meetings and that sort of thing. We usually



1 begin clinic between 8:30 and 9:00 or so in the
2 morning. And, you know, treatments start, you
3 know, 7:30 or 8:00 on the different machines.
4 A lot of what I do is on the Gamma Knife. We
5 treat those three days a week. And those are
6 more complicated and doesn't usually start
7 until 10:00 or 11:00, but the clinic starts for
8 that usually around 8:30 or 9:00. And the day
9 lasts until it's finished. On a good happy day
10 I'm usually through by 4:00. Other days I'm
11 still there at 6:30, 7:00, or 8:00 o'clock.

12 Q: All right. Now, Dr. Cawley has testified about
13 some aspects of the radiation oncology program
14 at MUSC, but I'd like to hear your perspective
15 about things from your perspective as
16 departmental chair. Let's start with the NCI
17 designation. You mentioned NCI a minute ago.
18 Dr. Cawley told us what the NCI designation is,
19 so you don't need to really go into that. But
20 my question is, does the NCI designation that
21 MUSC has, does that have a relevance beyond
22 academia?

23 A: I think so. It provides the standard of
24 excellence that the NCI recognizes. It
25 provides clinical trials that wouldn't be



1 available otherwise, certain drugs that would
2 not be otherwise available for patients to
3 take. It's a very rigorous process to become
4 NCI designated. It's -- I think if one stood,
5 the application on the floor it would probably
6 be about five or six-feet tall. It looks at
7 research. It looks at clinical services. It
8 looks at the quality of the care. It looks at,
9 you know, clinical trials. It's not like a
10 stamp of the good housekeeping. It's actually
11 a designation that only about 75 or so centers
12 in the country have.

13 Q: What are some of those centers that are in our
14 country that are designated as NCI? Give us --
15 -

16 A: Well, in this region we're the only one in
17 South Carolina, which is why we fought very
18 hard with Senator Hollings to get that. In
19 North Carolina they have three, at Wake Forest
20 University, Duke, and UNC. The other near one
21 in our area is at Emory. We actually became an
22 NCI center before they did. The University of
23 Florida. But all the usual suspects, Harvard,
24 Yale, MD Anderson, you know, Vanderbilt, those
25 are -- they're scattered throughout the



1 country.

2 Q: All right. Now, does it mean -- if a hospital
3 does not have an NCI designation, does that
4 mean it can't give good cancer care?

5 A: No, it does not mean that at all.

6 Q: So, what does it mean? What's the -- what is
7 the significance of having an NCI designation?

8 A: Well, again, the availability of clinical
9 trials and the availability of programs,
10 research that's going on. In an NCI Cancer
11 Center you can walk down the hall and talk to
12 a researcher about a project that you might
13 want to develop clinically. So, there's the
14 opportunity for investigator-initiated trials.
15 It provides a broad framework for research and
16 excellence in clinical care.

17 Q: Dr. Cawley mentioned the NAPBC designation.

18 **MR. WESTBROOK:** Dan, would you put that slide up on
19 the board, demonstrative 5.

20 Q: We're not going to talk about all of these, but
21 we just talked about the NCI. Dr. Cawley
22 mentioned this NAPBC accreditation. You're
23 familiar with this accreditation?

24 A: Yes.

25 Q: Again, what's the significance of that, Doctor?



1 A: Well, this is a rigorous accreditation. There
2 are a number of them that we have that there's
3 an outside group that comes in and accesses the
4 breast cancer program. And there are certain
5 aspects of the program that have to be in
6 place. So, they review charts. They review
7 the people who are involved. They look at the
8 numbers of patients who are on clinical trials.
9 They look at the quality of care, the way it's
10 delivered, the presence of a tumor board. It's
11 a strenuous application that centers can apply
12 for.

13 Q: Aside -- what other accreditations does the
14 radiation oncology program at MUSC have?

15 A: Well, the radiation department is American
16 College of Radiology accredited program. We
17 have accreditation for our bone marrow
18 transplant team and probably others as well
19 that I'm not familiar with.

20 Q: Okay. The American College of Radiation?

21 A: Radiology.

22 Q: Radiology, excuse me. Is that ACR designation?

23 A: Yes.

24 Q: That's what it's usually referred to. Are you
25 Joint Commission accredited?



1 A: We are. The hospital is Joint Commission
2 accredited.

3 Q: All right.. You mentioned clinical trials. Let
4 me ask you about clinical trials a little bit
5 more. First of all, what percentages of MUSC's
6 clinical trials -- do you know how many of
7 MUSC's clinical trials actually originate at
8 MUSC?

9 A: Well, some. The clinical trials have to have
10 an origin. And they arise usually from a
11 group. There's a principal investigator and a
12 co-investigator. Some of the clinical trials
13 originate at MUSC. The goal isn't for them to
14 be MUSC clinical trials. They're to be spread
15 out across the country in these national
16 cooperative trials. You mentioned the RTOG,
17 but there are others for like the Children's
18 Oncology Group, Southwest Oncology Group, and
19 a whole slew of them. And the idea is that one
20 hospital cannot solve a problem in medicine.
21 There are diseases like Wilms' cancer of
22 children. It's a tumor of the kidney. When I
23 was a child, it was a hundred percent fatal.
24 There are only about 300 cases a year. The
25 people back in the 1950s recognized that there



1 would never be a solution to Wilms' tumor or
2 childhood leukemia or a lot of others. A lot
3 of the clinical trials began with children,
4 because people were more passionate about that.
5 And so they agreed to have these national
6 trials that hospitals across the country would
7 agree to standardization of care, they would
8 treat patients the same, they would have the
9 equipment validated that it was accurate. And
10 so it really doesn't make a difference whether
11 they originate at MUSC or elsewhere. The goal
12 of the clinical trial is to learn how to do
13 things better, to solve problems in medicine.
14 And the only way it can be done rapidly is to
15 have some sort of coordination of major centers
16 around the country.

17 Q: You said -- you just said something about
18 there's a validation of the equipment that's
19 used; is that right?

20 A: So, for the RTOG to do a lot of the trials that
21 are done using what's called intensity-
22 modulated radiotherapy or stereotactic body
23 radiosurgery, you have to have these studies
24 done where they'll send probes and what are
25 called phantoms. And you'll have to ---



1 Q: What was the word you just ---

2 A: Phantoms.

3 Q: Before phantoms you used ---

4 A: Like a radiation probe.

5 Q: A probe, okay.

6 A: Yeah. And so you have to be able to validate
7 that what you're saying that you're delivering
8 is actually accurate. And so this data that
9 the physics group in our department will
10 obtain, it takes a lot of data gathering. And
11 then that's sent to MD Anderson, which has a
12 reference lab for radiation equipment. And
13 they designate that you're either right or
14 you're wrong. And if you're not right, then
15 you can't join a clinical trial. So, it's very
16 important that, when patients who are in
17 clinical trials, where it's very complicated
18 radiation, that it's validated that what's
19 actually being done is being done correctly.

20 Q: In your opinion, Doctor, does participation in
21 clinical trials, does it have an effect on the
22 overall quality care of an oncology program?

23 A: Well, I think so. Patients ask to be in
24 clinical trials routinely. Some don't know
25 about clinical trials, and so we tell them



1 about it. Not everyone chooses to be in a
2 clinical trial, because there's still a stigma
3 that people don't want to be a guinea pig or
4 something like that. That's not what these
5 clinical trials are. A clinical trial
6 approaches a problem where we don't know the
7 answer. And so there's a standard of care, but
8 maybe a new intervention, a new dose of
9 radiation, a new drug, or a novel approach to
10 care. And so they're -- frequently they're
11 blinded, so that the researchers don't know
12 who's on which arm. We like them to be
13 prospective, so it takes away physician-
14 investigator bias. And so it provides an
15 opportunity to give better medicine and to
16 learn more. A clinical trial, because they are
17 national cooperative groups, have a whole team
18 of people that overlook our shoulders when we
19 put a patient on a clinical trial.. I used to
20 dread it, because I hate it when somebody's
21 looking over my shoulder. But it's very
22 helpful, because it gives an extra level of
23 satisfaction that what's being done is being
24 done correctly. And so the patients actually
25 get an extra team of doctors that they'll never



1 know -- the doctors will never know the patient
2 because they're de-identified. But it's clear
3 that, you know, they're overseeing how the
4 treatments are being done.

5 Q: So, approximately what percentage of MUSC's
6 oncology patients are now involved in clinical
7 trials?

8 A: It varies from year to year, but I think about
9 12 to 15 percent is what it's been over the
10 last -- ever since we've had a cancer center,
11 I think it's been around that.

12 Q: What -- will patients at MUSC Nexton's facility
13 be involved in clinical trials?

14 A: Oh, yes. Of course.

15 Q: All right. Let's take a look -- let's move on
16 to another subject.

17 **MR. WESTBROOK:** Let's look at, Dan, demonstrative
18 10. If we can put that up on the screen,
19 please.

20 Q: Now, you mentioned tumor boards a moment ago.
21 That term's been used by other witnesses in
22 this case. What is a tumor board?

23 A: A tumor board is a meeting basically. And it's
24 a patient-oriented meeting to discuss care
25 prospectively. And so a new patient will come



1 into the cancer center and they'll have one of
2 these cancers that are listed on this slide.
3 And there will be a group of people that will
4 see the patient, generally a surgical
5 specialist, a medical oncologist, and a
6 radiation oncologist. Then there will be a
7 meeting to discuss their care. And at the
8 meeting we review the images. We also review
9 the pathology, so that everybody has a clear
10 look at the actual pathology, pathological
11 slides. And then we hammer out how the patient
12 would best be treated. We vet them for
13 clinical trials. We talk about whether
14 radiation goes first or chemotherapy or whether
15 they're combined. So, they're working
16 conferences. And it's real important, because
17 the people who attend them in each area, that's
18 really all that they do. I primarily take care
19 of brain tumors. And we'd have no clue what to
20 discuss in the head and neck tumor board or the
21 genital urinary tumor board, because I'm just
22 not on that team. And so the people that I
23 work with and the people that work in each of
24 these areas are specialists. And so it's not
25 like the person who maybe did a surgical, you



1 know, residency, you know, 20 years ago is
2 going to come in and discuss breast cancer or
3 GYN cancer. The people that are at this
4 meeting are focused just on the specialized
5 diseases. It's a team.

6 Q: And how many tumor boards does MUSC have?

7 A: Well, we have 11 that meet regularly.

8 Q: And what are the subspecialties, if you could
9 read those into the record since this
10 demonstrative is not part of the record,
11 please.

12 A: Head and neck cancer, brain tumors, thoracic
13 tumors, gastrointestinal tumors, genital
14 urinary tumors, gynecological tumors, pediatric
15 tumors, melanoma and other complicated skin
16 cancers. It's not just melanoma. Sarcoma.
17 And that also includes bone cancers. Lymphoma
18 and leukemia, and then we have a specialized
19 just for pediatric brain tumors.

20 Q: All right. Now, these are -- did I understand
21 you to say these are separate tumor boards that
22 meet separately?

23 A: Yes. They meet throughout the week on
24 different days. Each one of these takes
25 between an hour to two hours to go to. So,



1 they're spread throughout the week. There's no
2 way that one person could go to all of those
3 and still do his job.

4 Q: Dr. Jenrette, what is your opinion about the
5 value of subspecialty -- a group of
6 subspecialty tumor boards versus the value of
7 a general tumor board?

8 A: The subspecialty tumor boards have experts who
9 only deal in those problems and they're very
10 focused on those diseases. And so opinions are
11 generally based on facts and what we know. And
12 general tumor boards are frequently not well
13 attended in my experience, because we used to
14 have a general tumor board at MUSC 35 years
15 ago. And people took no interest in the cases,
16 unless it was their specific case. They may or
17 may not be people who are knowledgeable about
18 a particular cancer that was being discussed.
19 So, we abandoned the general tumor board
20 concept literally early mid 1980s and developed
21 one after the other. You know, teams sort of
22 spontaneously formed as new faculty came in.
23 And there's no going back for MUSC for that.
24 We'll always have specialty tumor boards.

25 MR. WESTBROOK: Dan, let's look at demonstrative 11,



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1 please.

2 Q: This is a similar-looking slide, but it says at
3 the top Multi-disciplinary Oncology Programs.
4 Now, what is the difference between a multi-
5 disciplinary oncology program and a tumor
6 board?

7 A: Well, again, a tumor board is a meeting and
8 that's all it is, that it's a very important
9 meeting. A program begins with the development
10 of the concept that we need a program. So,
11 just take brain tumors for an example, which
12 is, again, what I'm primarily involved in.
13 About 25 years ago we decided that we should
14 start meeting regularly having these tumor
15 boards, but also having clinics, developing,
16 you know, a system of research. We would bring
17 in researchers to talk about new trials that we
18 might want to develop at MUSC. We talk about
19 the way we navigate patients through once they
20 enter the doors of the cancer center, so that
21 they don't get lost. It's just like having a
22 team that works together. There's typically a
23 team leader, which is most typically a nurse or
24 a physician's assistant, sort of -- they're
25 kind of the glue of the team. There are



1 navigators, there are social workers, there are
2 financial people. And they help to congeal the
3 whole program, so that the patient gets into
4 the right care and doesn't get lost throughout
5 the care.

6 Q: All right. And, again, it looks like from the
7 slide you have 11 of these programs at MUSC.

8 A: Yeah, that's right.

9 Q: Are they the same -- I won't ask you to read
10 through all of those again, but they're the
11 same subspecialties ---

12 A: It's the same as the tumor board.

13 Q: Excuse me. Are they the same subspecialties as
14 the tumor board?

15 A: Yes, that is correct.

16 Q: All right. So, let me ask you about the
17 oncologists who are involved, the types of
18 oncologists who are involved in the multi-
19 disciplinary program. I think you've mentioned
20 -- correct me if I'm wrong. But just for the
21 sake of time I think you had mentioned
22 radiation oncologists, medical oncologists, and
23 surgical oncologists.

24 A: Yes.

25 Q: Are those the three ---



1 A: Those are the core. And then they are also
2 part of the team that goes -- there are
3 pathologists and radiologists. And those are
4 specialized as well. The people who go to the
5 brain tumor board, those are neuropathologists
6 and they're neuroradiologists, that's what
7 their specialties are. They've done extra
8 training to do that particular subset of
9 medicine.

10 Q: All right. Well, I'll ask you about those in
11 just a moment. Let me start with the
12 oncologists, and in no particular order. But
13 when you say surgical oncologist, what do you
14 mean exactly? What is a surgical oncologist?

15 A: Well, surgeons are the people who go into the
16 operating room and do operations. They cut
17 people, I guess would be the easiest thing.
18 And there are specialists in basically every
19 part of the body that do these procedures. So,
20 take the GYN and genital urinary, they operate
21 both in the pelvis. But they are so
22 specialized that the urologist would not go in
23 and do a hysterectomy. The gynecologist would
24 not go in and resect a ureter or bladder
25 cancer. They're specialized down to a very



1 fine degree. And we have specialists in every
2 area, you know, whether it's head and neck or
3 thoracic or GI or GU and throughout the whole
4 realm of cancers.

5 Q: At MUSC, do you work with any surgical
6 oncologists, who, in addition to doing cancer
7 surgery, do other types of non-cancer surgery?

8 A: No.

9 Q: Why not?

10 A: That's just their focus. And, you know, people
11 choose to do what they want to do. And there's
12 a very valuable role for people who do things
13 like appendectomies or gallbladder surgeries or
14 things like that. But that's not what these
15 people do. They could. You know, the thoracic
16 surgeons who do cancer, they could do cardiac
17 bypass, but they chose not to. They chose to
18 specialize in cancer. There's so much base
19 knowledge of cancer that, to do other things
20 would divert their attention away from what
21 their real focuses are.

22 MR. WESTBROOK: Let me ask you, Dan, to pull up
23 demonstrative 16 for a minute, please.

24 Q: And, again, Dr. Jenrette, you've reviewed this
25 demonstrative before and helped prepare it,



1 provided the numbers; is that correct?

2 A: Yes.

3 Q: All right. How many surgical oncologists at
4 MUSC?

5 A: I think there's at least 20. Arguably more
6 than that, but I kind of ran out of names that
7 I could think of after around 20.

8 Q: All right.

9 A: And I asked the -- what we call the integrated
10 cancer center team head, Dr. Mahvi, how many he
11 thought. And he came up with the same number.
12 So, I think 20 is fairly accurate.

13 Q: All right.

14 MR. WESTBROOK: Now, Dan, why don't you put up the
15 rest of demonstrative 16 now.

16 Q: All right. So, we've talked about surgical
17 oncologists a little bit. Let's talk about
18 medical oncologists. Again, remind us what
19 medical oncologists do.

20 A: Medical oncologists are the ones who treat with
21 drugs. Typically in the past it's been
22 chemotherapy drugs. Now there are a lot of
23 immunotherapies and targeted therapies that
24 attack cells at certain phases of their
25 development. And so we have 22 who are adults



1 and we have five that are pediatric.

2 Q: All right. And how many radiation oncologists
3 in the department you chair?

4 A: Well, we have seven right now. I'm hoping to
5 hire one, who's interviewing with me tomorrow,
6 that she'll join our team. So, right now if we
7 have her, it'll be eight.

8 Q: And for these three area of oncologists,
9 surgical oncologists, medical oncologists, and
10 radiation oncologists, how many subspecialties
11 are encompassed by these groups? Maybe that's
12 -- let me rephrase that question. How many
13 subspecialty areas are covered by each of these
14 specialty oncologists?

15 A: Well, those same 11 sites that we discussed a
16 few minutes ago -- in radiation oncology, we
17 don't have 11 of us, so some of us cover a
18 couple or two or three different things. In
19 surgical oncology, there's no cross covering
20 from a head and neck to thoracic or GI or so
21 forth.

22 Q: Let me ask you particularly about radiation
23 oncologists while we have that up there. If
24 the MUSC Nexton site is approved ultimately and
25 built, what kinds of radiation oncologists will



1 staff -- will be at Nexton and staff the Nexton
2 site?

3 A: It will be these same eight people. They would
4 rotate up there. They already have a model for
5 that with Mt. Pleasant. We started out trying
6 to have just one physician there, but it didn't
7 work well and the care wasn't as good. So, we
8 went to the model where the people who do like
9 breast cancer and head and neck and so forth
10 would spend times throughout the week at -- so,
11 there's one FTE essentially at Mt. Pleasant.
12 There will be one FTE full-time equivalent in
13 Nexton, but it will be filled by all these
14 people. They'll rotate driving out to the
15 center, just like we do in Mt. Pleasant.

16 Q: All right.

17 MR. WESTBROOK: Let's look at demonstrative 17,
18 please.

19 Q: So, you mentioned a minute ago also part of the
20 multi-disciplinary team that were radiologists
21 and pathologists. And if you've already given
22 all that's important about that, that's fine.
23 But you were talking about the level of
24 specialty that radiologists and pathologists
25 that MUSC had with respect to the multi-



1 disciplinary cancer team. Can you ---

2 A: Well, the pathologists and the radiologists
3 that go to the different tumor boards, that's
4 what they do. They do whatever that subset is.
5 So, again, taking brain is where I spend a lot
6 of my time, there are only neuroradiologists
7 there who have done a fellowship after their
8 radiology residency. And they don't look at
9 mammograms. They don't look at kidney x-rays
10 or chest x-rays. They just look at brain and
11 spinal cord tumors. Pathologist is the same
12 thing. The people that come to the tumor
13 board, that's their neuropathologists. And
14 across the board we have people who are experts
15 in radiology and pathology and all those
16 different areas. It's not that they weren't
17 trained in the other things. They just
18 narrowed the focus of what they do in their
19 career, so that they would be able to stay top
20 of the line in what they do.

21 Q: All right. Now, the slide also refers to
22 fellows and residents. How do fellows -- well,
23 first of all, let me back up for a second. How
24 many fellows and residents do you have that
25 work in oncology?



- 1 A: Well, there are 12 adult hematology/oncology
2 fellows. There are two pediatric oncology
3 fellows. And in our department there are
4 residents. We don't have a fellowship in our
5 department. So, there are six radiation
6 oncology residents. We are slotted for seven,
7 but we have an open position we are trying to
8 fill.
- 9 Q: So, what role do these fellows and residents
10 have with respect to the multi-disciplinary
11 program that you have been talking about?
- 12 A: These are physicians. They're very smart.
13 They're still in training, but they're intense
14 in their acquisition of knowledge. And so they
15 participate in tumor boards. They can cite
16 studies, clinical trials. They are also
17 available as extenders of care. It's important
18 to recognize that at nighttime there are adult
19 -- there are fellows that are throughout the
20 hospital that are taking care of patients with
21 the supervision of their faculty attending
22 physicians. And so these are extenders of
23 people who are -- in the case of the adult and
24 pediatric oncology fellows, they are already
25 Board Certified in their specialties. These



1 are internists and pediatricians. And so
2 they're working in a hospital caring for
3 patients and they're part of the fabric of the
4 cancer program.

5 Q: All right.

6 MR. WESTBROOK: Dan, if you'd pull up the rest of
7 this slide, please.

8 Q: It has on the other side of the slide, under
9 the heading Non-Clinical, Physicist and
10 Dosimetrist. Can you read into the record how
11 many MUSC physicists there are and how many
12 dosimetrists?

13 A: We have right now six full-time physicists.
14 We've hired one who will start July 1. We are
15 interviewing someone in the next week or so.
16 We had an unexpected person to leave recently
17 and so we're replacing him. And we hope we'll
18 have that position filled by July 1 as well.
19 We know that we have the one that started on
20 July 1.

21 Q: And the dosimetrists, how many of those?

22 A: We have seven.

23 Q: All right. And the role of -- well, physicists
24 and dosimetrists, do they -- we've talked a lot
25 about, with the physicians, the level of



1 subspecialties. Do physicists and dosimetrists
2 have subspecialties too?

3 A: They do in our department to a large extent.
4 So, again, working in the brain tumor and the
5 machine called the Gamma Knife that I spend
6 most of my time, there are two physicists to do
7 that. And then we have things that have names
8 like high dose rate brachytherapy and low dose
9 rate brachytherapy. There are specific
10 physicists who work on that. There are others
11 who do things that have names like stereotactic
12 body radiosurgery. They cross cover each
13 other, but they're very specified, for the most
14 part, of what they do. Again, working as a
15 team, it's easier working with somebody who
16 does the same thing day in and day out than
17 somebody who might do an occasional case and
18 have to go back and ask somebody else for help.

19 Q: All right. Telehealth, do you and other
20 radiation oncologists at MUSC use telehealth in
21 treating patients?

22 A: We do in radiation for weekly peer review. So,
23 we have cases -- new cases every week at our
24 center downtown, at our center in Mt. Pleasant,
25 at our center that we have at Murrells Inlet.



1 And so we do case conferences by telehealth, so
2 that we can review each other's plans, you
3 know, look at the actual nuts and bolts of how
4 the radiation is being delivered. And so
5 that's a -- telehealth's a very convenient way
6 to do that. Some of the tumor boards,
7 specifically thoracic tumor board, also does
8 telehealth with some other outside hospitals.
9 And I think breast cancer does that as well.
10 Telehealth is a large initiative of MUSC to
11 help extend care out into, you know, the local
12 communities across the state. I think it was
13 part of the mandate from the Affordable Care
14 Act to implement telehealth across the nation
15 as a way to improve the quality of life of
16 people.

17 Q: And if MUSC Nexton is approved and built, will
18 telehealth services be provided ---

19 A: Certainly. With the peer review, our
20 department will definitely have that and they
21 will be involved in the tumor boards and so
22 forth. So, they would be involved with -- you
23 know, with a physician in Beaufort, South
24 Carolina, or Orangeburg, South Carolina, other
25 places that have cases they want to present,



1 that they'd be able to do that.

2 Q: Dr. Jenrette, I want to give you, as an expert,
3 two different scenarios and then I'll ask you
4 a question about them. The first scenario is
5 that, in the future, MUSC refers most or all of
6 its radiation oncology patients, who live in
7 the Berkeley Dorchester area, to -- those
8 referrals MUSC would make to Trident. All
9 right. That's the first scenario. Second
10 scenario is, MUSC goes forward with this CON
11 and builds its own radiation therapy center in
12 Nexton. Now, given those two scenarios and as
13 an expert in radiation oncology, which of those
14 scenarios do you believe would provide overall
15 the better quality of care for patients?

16 A: I believe option two would.

17 Q: All right. And why do you say that?

18 A: Well, in cancer care, because there are teams
19 of doctors, there's a problem to maintain
20 continuity of care and making sure that the
21 patients don't get lost. And so as long as
22 they're within the MUSC system, they're under
23 the same electronic medical record, we have the
24 same physicians that attend the weekly cancer
25 conferences or tumor boards, we work under the



1 same roof, we see each other in clinics, we
2 frequently have clinics in which all of us are
3 there. And the Gamma Knife and the
4 neurosurgeon and I see patients together every
5 week.

6 Q: Is this the same -- you were talking about --
7 is this the multi-disciplinary program you were
8 talking about a minute ago?

9 A: Yes. Yes. So, we have that continuity of care
10 in which the patient stays within the System.
11 And the chances of getting lost or wrong
12 treatment or the timing of treatment being
13 inaccurate or wrong are greatly minimized.

14 Q: All right. You've got a number of patients and
15 have treated a number of patients over the
16 years. Do you recall or happen to know
17 approximately how many radiation oncology
18 patients come from areas around Berkeley and
19 Dorchester and what's been called here in this
20 trial as the north area?

21 A: Well, a lot. I think the data is about a third
22 of our patients come from that area.

23 Q: All right. And they are -- at this point in
24 time would they have the option of going to
25 Trident for cancer care.



1 A: They surely would.

2 Q: And they are choosing instead to come to MUSC
3 on the peninsula?

4 **MR. THOMAS:** Objection, Your Honor. He -- this
5 doctor doesn't know what the patients are
6 choosing or whether they're being referred. He
7 just doesn't know that. He doesn't know for
8 every patient that goes to MUSC if that patient
9 made the choice to go or if that patient was
10 referred and then just decided to do so because
11 their physician referred them. So, I don't
12 think he can offer an opinion on that at all.

13 **THE COURT:** Mr. Westbrook, do you have a response to
14 that?

15 **MR. WESTBROOK:** I can rephrase the question.

16 **THE COURT:** Okay. I agree. I think -- well,
17 there's two parts to that. One, I'm pretty
18 sure Mr. Thomas is right insofar as the
19 patients' interests, they don't -- we don't
20 know what those are. We don't know what they
21 may have decided. But we may know about
22 referrals.

23 Q: Doctor, let me ask you this. First of all, let
24 me get to that first part in patients and see
25 if there's a -- what you do and don't know. Do



1 you ever talk to your patients?

2 A: I talk to them every day.

3 Q: All right. And based on those conversations as

4 ---

5 **MR. THOMAS:** I'm going to object. This is hearsay,

6 Your Honor.

7 **MR. WESTBROOK:** It is hearsay. And he is an expert

8 and he can rely on hearsay under the Rules of

9 Evidence.

10 **MR. THOMAS:** Not this kind of hearsay, he can't.

11 Not just a conversation he had with one of his

12 patients. I think he can rely on hearsay of

13 certain types, like scholarly articles and

14 things of that nature. But I'm not sure that

15 a casual conversation he had with his patient,

16 he can rely on that.

17 **THE COURT:** Here's the problem we get into. He has

18 said that a third of MUSC patients come from

19 this area. How many of that one third of this

20 total population of patients are his personal

21 patients? Which he may know about them.

22 **MR. WESTBROOK:** I understand. And I guess what I'm

23 asking -- Mr. Thomas' objection said he doesn't

24 know what all the patients say. I'm not asking

25 about all the patients. I'm asking about his



1 patients, which it would seem to me would be --
2 you don't have to get 100 percent of the
3 patients to get a sense of why at least some of
4 the patients are going. You need a
5 representative sample. I would say that his
6 patients would constitute a representative
7 sample of the radiation oncology patients.

8 **MR. THOMAS:** I would disagree with that. He hasn't
9 laid a foundation that he's done some kind of
10 study and statistical analysis in determining
11 what's a representative sample and that type of
12 thing. I mean, as I recall from statistics and
13 -- you know, in school, you know, n equals --
14 it's got to equal something, maybe more than a
15 hundred. And, you know, he's got -- he's
16 trying to get anecdotal evidence into the
17 record, Your Honor. I mean, that's just clear.

18 **MR. WESTBROOK:** Your Honor, I would just go and say
19 that, if it's a type -- I'm reading from Rule
20 703. If hearsay is of a type reasonably relied
21 on by experts in the field forming opinions or
22 inferences upon a subject, the facts need not
23 be admissible. So, I would say that he is a
24 guy who's been practicing radiation oncology
25 for 36 years. He's talked to -- I can't



1 establish -- I don't know, but I would assume
2 hundreds of patients, thousands -- if not
3 thousands of patients over those years, he
4 would have a sense of why they come to MUSC.

5 **MR. THOMAS:** He'd have to have an actual
6 conversation, say, tell me today, what brought
7 you here.

8 **THE COURT:** Yeah, that's the problem. I think
9 there's two aspects to that, again, is how many
10 of his patients has he had this conversation
11 with? And insofar as he knows, is that a
12 typical cross section of the patient
13 population? Given his impending retirement,
14 that might -- that number might be going in a
15 particular direction. So, he doesn't get new
16 patients since he's retiring. I don't know
17 that. That's the foundation that would have to
18 be ---

19 **MR. WESTBROOK:** All right. Well, let me ask a
20 couple of questions along that line and see
21 what happens.

22 **Q:** Dr. Jenrette, first of all, has your practice
23 begun to slow down at this point?

24 **A:** Not yet.

25 **Q:** Are you still accepting new patients?



1 A: Yes.

2 Q: All right. Now, over the 30 -- how many years
3 have you been practicing?

4 A: Thirty six years.

5 Q: Thirty six years you've been practicing. How
6 many patients have you had over those -- can
7 you give us a rough estimate?

8 A: Well, I figured out once over 2,000 breast
9 cancer patients, probably close to 1,000 brain
10 tumor patients, maybe four or 500 children with
11 cancer. I would say maybe all together --
12 because when I was young I took care of a lot
13 of other diseases before we narrowed our focus.
14 But best guess maybe six or 7,000 cases over 36
15 years.

16 Q: Six or 7,000. All right. Now, of those six or
17 7,000, do you have a way of estimating how many
18 you've had a conversation with about why they
19 are coming to MUSC, whether it was by referral
20 or whether it was by choice or both or either?

21 A: Well, I'm not sure I can answer that. The
22 patients that come to radiation oncology are
23 usually referred to me and my colleagues by
24 other people in the MUSC system. So, they come
25 to one of the surgeons. Usually cancer starts



1 out with a biopsy or maybe an image, if it's
2 breast cancer. And so the patients come, for
3 one reason or another, to those people, whether
4 it's because they read about things on the MUSC
5 website or from referrals from other -- I'm
6 sure there are all sorts of different ways that
7 people get to MUSC. But the ones that I see
8 are, for the most part, internal referrals from
9 the doctors that I work with. Now, with the
10 Gamma Knife, that's not necessarily true. I do
11 get patients from all over South Carolina who
12 come to me for that, because we have that
13 expertise to do. Even though they have a
14 center in Columbia, the volume of what we do
15 and the experience that we have is much
16 greater. So, we have patients that drive right
17 by Columbia, South Carolina to come to me.

18 Q: All right. And do you have patients --
19 regardless of whether by referral or by their
20 own independent decision making, do you have
21 patients who come to you for linear accelerator
22 services in the radiation oncology department
23 from all over the State of South Carolina?

24 A: We do.

25 Q: All right. And are many of those from the area



1 in the -- or do you know how many come from the
2 area that's closer to Nexton?

3 A: Well, again, I think about a third come from
4 that area.

5 Q: All right. With that, let's just move on. And
6 I'm going to ask you about a machine that Mr.
7 Levitt yesterday referred to as the Clinac
8 Linac, which I'm going to refer to as the 600
9 machine, if that's okay. Do you know what I'm
10 talking about?

11 A: I do.

12 Q: All right. That is a linear accelerator; is
13 that right?

14 A: Yes.

15 Q: What do you use that for?

16 A: We use that for just one purpose, for total
17 body irradiation for patients going through
18 bone marrow transplants.

19 Q: Okay. Why don't you use it for other kinds of
20 treatments?

21 A: It doesn't have the modern attachments that
22 allow us to do modern radiotherapy. In the
23 modern equipment it can image each day as we
24 are treating to make sure the patient's
25 properly aligned. There are what are called



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1 multi-leaf collimator systems in them that can
2 shape the radiation to conform to the area
3 that's being treated. With the Clinac, the C6
4 Clinac Linac it, to do conformed treatment,
5 would require casting an alloy called cerabin
6 into a templated mold and pouring a hot molten
7 substance into that mold and then cooling it
8 down and mounting that to a tray. And it's too
9 much time and work to do that when you have
10 other machines that can shape and conform. The
11 TrueBeams, that are the workhorses that we
12 have, their tables have what are called six
13 degrees of freedom of movement. The C6 table
14 has only in and out and lateral movements.
15 There's no ability to align patients to ensure
16 proper treatments.

17 Q: All right. And the C6, that's the Clinac 600
18 you're talking about?

19 A: Yes.

20 Q: How does it do -- how does it perform with
21 respect to the total body irradiation that
22 you're talking about?

23 A: It's perfect for that, because we're just
24 treating -- total body irradiation is one of
25 the most complicated things that we do, because



1 it has to be accurate to within -- it has to
2 homogeneous so it's in five percent. And so
3 there's a lot of stuff that goes into
4 performing a total body irradiation treatment.
5 But there's no need for collimation and there's
6 no need for daily imaging. And because the
7 machine is idle for most of the time, it's
8 perfect because, to treat somebody with total
9 body irradiation, takes about two to two and a
10 half hours to get the same amount of radiation
11 that, if it were a breast cancer or head and
12 neck patient, would get in about a minute. It
13 has to be tuned down to a very, very slow rate.

14 Q: Well, given the limitations on this machine,
15 why doesn't MUSC just replace it with a newer
16 machine?

17 A: We'll have to one day, because this machine is
18 over 20 years in age and I don't think the
19 company will support it much longer in parts
20 and stuff. The problem is the vaults, what the
21 machines are housed in, have six-foot thick
22 walls. And they are construed into a building
23 that was built in 1954 that has beams and
24 pilings that we can't even always anticipate
25 where they are. And the long and short of it



1 is, the room where that 600 machine is, is very
2 small. It would not accommodate new equipment
3 that we can use in there. So, once that
4 machine dies, we're really in a fix for total
5 body irradiation because we don't have a good
6 place to do it, other than on the machines that
7 are treating all the other patients. So, that
8 would mean coming in at 4:30 or 5:00 in the
9 morning to treat somebody for two and a half
10 hours or three hours to get the treatment. And
11 then the second treatment's in the afternoon,
12 another two and a half to three hours. So,
13 it's really been a luxury having a machine that
14 sits idle most of the time so that the
15 throughput of the other patients can continue
16 during regular operating hours.

17 Q: And if you were to buy a new machine today and
18 replace the 600, how much do new Varian
19 TrueBeams run?

20 A: I think the ones that we have now were each
21 about two and a half million dollars. And,
22 again, not to belabor the size of our pitiful
23 vaults that we have in the hospital, but the
24 TrueBeam that's in the room right next to the
25 C6 and between the Gamma Knife and the C6, it



1 barely fit into that room, the TrueBeam. They
2 actually had to modify the cabinets because it
3 was going to collide with the cabinets in
4 there. So, we really are working in -- you
5 know, those three vaults are ---

6 Q: And so if you replace the C6, the 600, in
7 downtown, you would -- it sounds like you would
8 have to get a -- not only buy a new machine,
9 but buy -- or construct a new vault; is that
10 right?

11 A: Right. And in an area where there's no place
12 to put a vault. There's no way to modify the
13 C6 vault to accommodate anything.

14 Q: All right. What kind of linear accelerator are
15 you scheduled to put in Nexton?

16 A: TrueBeam.

17 Q: All right.

18 A: It's a Varian -- Varian is a corporation. It's
19 called TrueBeam.

20 Q: All right. And you have two of those already;
21 is that right?

22 A: We have three in Charleston; two in downtown
23 and one in Mt. Pleasant. And then we have the
24 center that we have a joint venture in Murrells
25 Inlet. They have a TrueBeam as well.



1 Q: So, you would have one there and the vaults
2 going to be plenty big in Nexton?

3 A: There will be a modern vault there. The cancer
4 center -- Hollings Cancer Center has modern
5 vaults too. And then Mt. Pleasant and Murrells
6 Inlet, those are all modern vaults. They'll
7 accommodate today's equipment.

8 Q: All right. And what is RapidArc technology?

9 A: RapidArc is a way that the treatments can be
10 sped up by having rotating beams. You know,
11 while these beams are rotating, the little
12 leaves are moving in and out to shape the beam
13 of energy to conform to the patient's tumor.
14 And it just -- it's a complicated computer
15 software that allows us to have a faster
16 throughput of patients.

17 Q: Will the Nexton linear accelerator have
18 RapidArc capability?

19 A: Yes. Yes. Yes.

20 Q: Okay. How much would it cost to add a
21 stereotactic capability to the TrueBeam in
22 Nexton?

23 A: Well, I think that it could do it now. But if
24 it doesn't have the software -- if we don't buy
25 the software package, I would say another 200



1 or \$300,000.

2 Q: All right. And what's your understanding as to
3 whether this unit will have stereotactic
4 capability?

5 A: I believe it will. I don't think the doctors
6 I work with would stand not to have it.

7 Q: All right. What is an HDR machine?

8 A: HDR is a high dose rate brachytherapy. In that
9 machine there's a little pellet of radioactive
10 source and it sits on kind of a wire inside of
11 the machine. It looks like a little barrel.
12 And that could be used to treat things that are
13 in cavities such as like the esophagus or
14 bronchial airway or the vagina. Or it can
15 treat what's called interstitial where we put
16 catheters into, you know, tumors that are
17 called sarcomas, which might be in the muscles
18 of the leg or the muscles in the belly and
19 different areas like that. So, that's
20 something where we actually go into the
21 operating room to put catheters in.

22 Q: All right. And what's your understanding as to
23 whether MUSC Nexton will have an HDR machine?

24 **MR. THOMAS:** Objection, Your Honor. These facts are
25 already in evidence. There is not HDR that's



1 going to be out there. And I don't think at
2 this point in time this doctor -- unless they
3 lay some kind of foundation that he's had
4 conversations that they're going to purchase
5 this equipment, that -- you know, I haven't
6 seen any quotes for the equipment in the CON
7 application, you know. This equipment was
8 available in 2017 when they applied, as was
9 stereotactic. They didn't buy it. Now they're
10 saying we're going to get all of this. Well,
11 that's not what's in evidence right now.
12 What's in evidence is that they may. And so,
13 I mean, if he's got a witness that's going to
14 just contradict the CON application, well,
15 maybe they need to drop and re-file to add that
16 in the CON application, so the Department can
17 consider that, along with all their other
18 stuff, their incorrect data.

19 **MR. WESTBROOK:** Your Honor, if I may answer that.
20 CON applications change all the time. I've
21 been doing CON work for over 30 years. I've
22 never done a CON application -- if I may finish
23 my argument.

24 **MR. THOMAS:** I'm not talking.

25 **MR. WESTBROOK:** I've never known a CON application



1 that didn't change. The issue with DHEC is
2 whether that change is what DHEC would consider
3 a substantial change or not. And I've been in
4 trials, CON trials, where the opposing side
5 would argue that a change would be a
6 substantial change. And that would be an issue
7 for The Court to decide as opposed to DHEC,
8 since this is a de novo hearing. I do believe
9 I -- you know, Mr. Thomas says the evidence is
10 already in. Well, I'm about to give some more
11 evidence on this. You aren't limited just to
12 one piece of evidence. One piece of evidence
13 is what the CON application says. Another
14 piece of evidence is what Dr. Cawley testified
15 the other day. Another piece of evidence is
16 going to be what Dr. Jenrette testifies in just
17 a minute as to his knowledge and understanding
18 of whether an HDR machine is going to be in
19 there. And then it would be -- really the
20 issue would be whether, if that were to occur,
21 would that be a substantial change or not or
22 would it require another CON? Which I think
23 would be an issue for you to decide if that
24 were brought -- if that was raised as an issue
25 by our opponents.



1 MR. THOMAS: Well, and certainly it will be.
2 There's an actual process, Your Honor, that
3 you've got to go through. And so I guess if
4 Mr. Westbrook lays the proper foundation as to
5 when did they make the decision that they're
6 going to add all these things, who was part of
7 that discussion, you know, what's the cost,
8 have you seen a quote, are you sure about that?
9 Because he's starting to ask things and Dr.
10 Jenrette's like, well, I think the software
11 package is \$200,000. Now, he's clearly an
12 expert in radiation oncology. I certainly
13 would go there myself and request his services.
14 But he's laid no foundation that he knows all
15 the costs of these, that he looks at the
16 equipment quotes for these types of things.
17 So, he's getting a bunch of stuff in evidence
18 that I'm not so sure that this person is the
19 right person to be getting that in.

20 THE COURT: Well, we have had some discussion about
21 some of these product features. It may be that
22 Dr. Jenrette has a different take on it. And
23 that may or may not create an issue for this
24 Court. We'll see. But I'm going to allow the
25 question and see what he says.



1 MR. WESTBROOK: All right.

2 Q: Dr. Jenrette, during the 36 years that you've
3 spent at MUSC as a radiation oncologist, have
4 you been involved at all in the purchase from
5 time to time of HDR machines?

6 A: Yes.

7 Q: And do you -- what is your understanding about
8 the current price of HDR machines? Are they
9 over or under \$600,000?

10 A: We just replaced our HDR machine. It was under
11 600,000.

12 Q: All right. Now, with respect to whether HDR
13 will be involved in Nexton or not, have you --
14 at the time that this application was
15 submitted, were you directly involved in
16 creating the application?

17 A: I was not involved in writing the application.
18 I was involved in the early meetings to discuss
19 moving a center out there.

20 Q: All right. And since -- after the application
21 was filed, have you -- Mr. Thomas asked about
22 conversations. Have you had any conversation
23 with anybody in the planning department or the
24 administration of MUSC about whether an HDR
25 machine would be involved in ---



1 A: Yes.

2 Q: And who was that?

3 A: Pat Cawley, who is the hospital CEO.

4 Q: And what did Dr. Cawley say?

5 A: He said, if we want it, we will get it.

6 Q: All right. And in your experience at MUSC and
7 working with Dr. Cawley and others in the
8 administration, when you, as Chairman of the
9 Department of Radiation and Oncology, have
10 requested strongly a clinical -- something that
11 relates to clinical care, what's been the
12 response typically?

13 A: They are supportive, if they have the capital
14 funds to support it.

15 Q: All right. And in this particular case, do you
16 feel strongly about an HDR machine's presence
17 at Nexton?

18 A: I would want it to be there. We have one
19 downtown, but we do not have one in Mt.
20 Pleasant because the centers are so close to
21 each other. We do have it at our center in
22 Murrells Inlet because it provides a whole
23 level of care that we wouldn't be able to
24 provide otherwise. And I think having one at
25 Nexton would be ideal. I think the doctors



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ROA_1134

1 that I work with would request that.

2 Q: And based on your conversation with Dr. Cawley,
3 what is your understanding as to whether one's
4 going to be there or not?

5 A: If we request it, he will support our getting
6 it.

7 Q: Will you request it or not?

8 A: We will certainly request it.

9 Q: All right. Dr. Jenrette, the radiation therapy
10 -- proposed radiation therapy at Nexton will be
11 a portion of a larger building; is that your
12 understanding?

13 A: That's my understanding.

14 Q: And do you recall approximately how many square
15 feet the radiation therapy center will take up?

16 A: I checked and it's 8,500 square feet, which is
17 a pretty nice size for a department.

18 Q: All right. And the rest of that building,
19 what's your understanding of what that will be
20 used for?

21 A: It's going to be a medical arts building and
22 there will be a number of specialties.
23 Throughout the campus we'll have offices out
24 there.

25 Q: All right. And is MUSC -- the building in



1 which the radiation therapy center will take up
2 8500 square feet, what portion of that building
3 will MUSC be leasing?

4 A: I think we're leasing the whole building.

5 Q: All right. And is that -- if that's a medical
6 arts building that MUSC leases for medical
7 care, arts, to use that phrase, is there --
8 what significance, if any, does that have with
9 respect to the radiation therapy treatment that
10 will be provided in that 8500 square feet?

11 A: Well, having different specialists who will be
12 working out there who take care of different
13 types of cancers will enhance the program,
14 because there can be programmatic development
15 out there, specialized clinics. And, you know,
16 we'd still have the tumor boards downtown, but
17 those patients would be discussed in the tumor
18 boards, have availability in the clinical
19 trials.

20 Q: All right. Dr. Jenrette, do you support this
21 -- do you personally support this plan, this
22 project to build a radiation therapy center at
23 Nexton?

24 A: Yes.

25 Q: All right. Why is that?



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ROA_1136

1 A: Downtown Charleston is getting to be overrun by
2 people. There's -- parking is horrible. It's
3 difficult to get there. People get lost. We
4 have valet parking, but every day I walk to
5 work and every day I walk right by the valet
6 parking at Rutledge Tower, one of the main
7 clinic buildings, and there's a line going out
8 in the street. And, you know, it's just going
9 to get more. And in the Nexton area, I drove
10 by there this morning coming to Columbia and it
11 was pitch black dark, but my understanding is
12 that the demographers have speculated there'll
13 be a tremendous amount of people there in the
14 next 28 years or so. So, as MUSC will possibly
15 get some of those patients as well, that would
16 just mean more people coming downtown. So,
17 it's nice to take the technologies closer to
18 people when possible, which is why we developed
19 our center in Murrells Inlet, why we developed
20 our center in Mt. Pleasant, and others that
21 we're involved with.

22 Q: Thank you, Doctor.

23 MR. WESTBROOK: No further questions.

24 MR. THOMAS: I got a few, Your Honor.

25 THE COURT: All right.



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ROA_1137

DR. JENRETTE - CROSS-EXAMINATION BY MR. THOMAS:

Q: Good morning, Dr. Jenrette. How are you?

A: I'm well. Thank you.

Q: Has anyone ever told you you sound like Thurston Howell, III from Gilligan's Island?

A: No, but I love that show. I'll think about that the next time I watch it.

Q: It hit me right when I was sitting there.

MR. DAYHUFF: At least he is wealthy as Thurston. Wasn't he a multimillionaire?

MR. THOMAS: He was.

A: And thank you for agreeing to come to me if you get cancer, but I hope you don't.

Q: Dr. Jenrette, you trained hundreds of residents, I would imagine.

A: No. Not nearly hundreds. We have one or two a year. And we've had -- the residency program's been in business for about 38 or so years. So, maybe 60. But I've been involved almost since the beginning of the program, so I would say I've been involved with maybe 50 or 55.

Q: So, is it because you've had that kind of low numbers, that's selective or did you just have positions for two?



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ROA_1138

1 A: The number of residencies is predicated by the
2 Academic Council for Graduate Medical Education
3 -- Accreditation Council for Graduate Medical
4 Education. And they only allow a certain
5 number of slots. In the whole country there
6 are only about 125, 140 slots in radiation
7 oncology. And there are I think 115 medical
8 schools. Not every medical school has a
9 training program. So, there are just so many
10 slots that can be divvied out to different
11 centers.

12 Q: Is MUSC's program selective or do you -- I
13 mean, do you look to get the best and
14 brightest?

15 A: It's very selective. It's very hard to get a
16 position on radiation oncology. I'm so glad I
17 got mine when I did.

18 Q: Okay. Now, you would agree with me that the
19 typical hours of operations for MUSC's linear
20 accelerators or the radiation therapy program
21 in which house the linacs are about 7:00
22 o'clock to 4:30 or 5:00, five days a week?

23 A: That's correct..

24 Q: And certain holidays like Christmas,
25 Thanksgiving, July 4th, certain of those days



1 you're not running a full operation, although
2 you may do a couple of emergency cases?

3 A: That's correct.

4 Q: Now, MUSC's radiation therapy program is an ACR
5 accredited facility. I think you've just
6 talked about that.

7 A: It is.

8 Q: And I believe you've already testified in your
9 deposition, most programs don't get that ACR
10 accreditation, do they?

11 A: I can't answer that. We decided to get it,
12 because I think under changes in the healthcare
13 system in this country, that Medicare and
14 Medicaid and other providers are going to want
15 to have some sort of accreditation for centers.
16 So, it's voluntary right now, but we felt like,
17 why not go ahead and volunteer and be ready for
18 those changes if and when they do come.

19 Q: Bear with me, sir. Would you agree with me
20 that most programs do not get accredited by an
21 accrediting body for their radiation therapy
22 program?

23 A: Are you talking about for the residency or for
24 the clinical program?

25 Q: Clinical program.



1 A: I think that many do, but I'm not sure whether
2 most do or do not. In academic centers a lot
3 of times, because they have so much scrutiny by
4 so many other agencies, it was felt
5 unnecessary, but we made the decision to do it.
6 And so I don't know whether like University of
7 North Carolina or Duke or those centers have
8 accreditation or not.

9 Q: But MUSC thought it was important to get an ACR
10 accreditation or wouldn't have done it, right?

11 A: That's correct.

12 Q: Okay. And you would agree with me that the ACR
13 accreditation is kind of like the Good
14 Housekeeping Seal of approval, right?

15 A: I think that's correct, yes.

16 Q: And the ACR accreditation kind of consists of
17 a team that will come in and will look at the
18 protocols of treatment, the management, the
19 staffing of the equipment, the type of
20 equipment you have in various charts to make
21 sure the patients are being treated correctly;
22 is that fair?

23 A: That's the usual way it's done, yes.

24 Q: Okay. Now, are you familiar with something
25 called the NCCN Guidelines?



1 A: Yes.

2 Q: Okay. Do the MUSC physicians use those
3 guidelines when treating patients in radiation
4 therapy?

5 A: Yes.

6 Q: Okay. Now, how much of your time at MUSC is
7 actually spent treating patients on the Gamma
8 Knife as opposed to the other radiation therapy
9 units you have?

10 A: Most all my patients are on the Gamma Knife.

11 Q: Okay.

12 A: I always have a few patients on the linear
13 accelerators. Patients with primary brain
14 tumors don't get Gamma Knife treatments, so I
15 always have some other patients.

16 Q: Would you say 95 percent of your patients are
17 on the Gamma Knife?

18 A: I think so.

19 Q: Okay. Now, MUSC treats palliative patients,
20 correct?

21 A: We do.

22 Q: And does a palliative care patient get as many
23 treatments as, say, a prostate cancer patient
24 does on the tomotherapy unit for a course of
25 treatment?



1 A: Well, the goal with palliation is to get the
2 patients out as quickly as possible to make
3 them better, so usually it's less. But the
4 term palliation is changing now. And so with
5 the Gamma Knife, I treat people with brain
6 tumors, which I check off the box as
7 palliation. But I have patients that are nine
8 years out that have no evidence of cancer. So,
9 now I'm thinking maybe they're not palliative,
10 they're cured.

11 Q: Okay.

12 A: But your question, I think, is if palliation
13 takes less treatments than a primary cancer.
14 In general that's true.

15 Q: Okay. Now, when I deposed you back in
16 November, you hadn't read the CON application
17 for this Nexton project, correct?

18 A: Correct.

19 Q: Since then have you?

20 A: Not too much more than when I looked at it with
21 you that day.

22 Q: Okay. And you didn't have any input into the
23 CON application, correct?

24 A: Well, I'm not a person that writes those
25 applications. You know, there's a whole team



1. of people at MUSC who do that kind of work, so
2. there were meetings that I attend to discuss
3. the idea of the center, where the center might
4. go, those sorts of things. But in terms of
5. sitting down and writing, I wouldn't have a
6. clue how to write a CON application to DHEC.

7. Q: Okay. Well, at the time I deposed you, I asked
8. you if you'd been in any meetings to discuss
9. the CON application and you said you hadn't,
10. right?

11. A: Well, not the application, but the center. So,
12. maybe that was just a confusion of terminology.
13. I didn't sit in on any meeting where we
14. hammered out the wording of the application,
15. that sort of thing. But in terms of the
16. concepts, sure. I don't think they would have
17. -- I don't think they would have moved it
18. forward at all if they hadn't had some input
19. from our department.

20. Q: So, whose concept would it have been not to
21. have stereotactic body radiation therapy,
22. stereotactic radiosurgery, and HDR?

23. A: Not mine.

24. Q: Okay. So, you don't know, right?

25. A: I do not know.



1 Q: Okay. And you actually had no input into the
2 location of this particular linear accelerator,
3 correct, in Nexton?

4 A: Well, the final decision was certainly not made
5 by me. There were several other sites that
6 were discussed. And I certainly expressed my
7 feeling that those were not good sites. But
8 the decision was not made by me where it
9 finally was decided.

10 Q: Okay. So, the question I asked you is, you
11 didn't have any input in the location of the
12 particular linac. And so the answer to that
13 would be, you did not, correct?

14 A: I think that's correct, yeah.

15 Q: Okay. And you were never asked yourself if the
16 Nexton area would be a good location, were you?

17 A: No. It was actually thrown out as the
18 different locations that they considered and I
19 thought that would have been the best.

20 Q: Okay.

21 **MR. THOMAS:** You've got Dr. Jenrette's deposition?

22 Q: Dr. Jenrette, I'm going to hand you your
23 deposition transcript. I think I got you the
24 page 13 there. You'll see some lines there.
25 And I'm going to ask you to look at line 22.



1 And I'm going to read you the question and I'd
2 like you to read me back the answer, if you
3 would. We'll go on to line 14 (sic). All
4 right. So I said, okay. And, Dr. Jenrette,
5 did you have any input into the location? What
6 was your answer?

7 A: Which line are you on? I'm sorry.

8 Q: I started on line 22 of page 13.

9 A: Okay.

10 Q: I said, okay. And, Dr. Jenrette, did you have
11 any input into the location? And you said?

12 A: I said, no.

13 Q: And I said, okay. Were you ever asked if that
14 would be a good spot? What did you say?

15 A: I said, nope.

16 Q: Okay. And up above I did say -- you said, I've
17 never seen the site, but I believe it's at the
18 Nexton area, which is a -- which is just beyond
19 Summerville. Do you see that on line 13 -- I
20 mean, on page 13, line 19?

21 A: I still have never seen the site.

22 Q: Okay. So, it's your understanding that MUSC's
23 going to put other cancer specialists in the
24 Nexton area, I think you just testified with
25 Mr. Westbrook about that, right?



1 A: Yes.

2 Q: Okay. But as of now, you're not a hundred
3 percent sure of the scope of the services that
4 will be offered out there, right?

5 A: Well, I think that's still in development, so
6 I can't give a crystalized answer. I can give
7 a theoretical answer, if you want a theoretical
8 one.

9 Q: No. I'm just asking if you're a hundred
10 percent sure of the scope of services that are
11 going to be offered out there at this time.

12 A: Not in totality, no.

13 Q: Okay. And you're not really sure what MUSC has
14 in terms of cancer-related specialties in the
15 Nexton area today, are you?

16 A: We have medical oncology, not in Nexton, but
17 closer to Trident. I think it's actually
18 adjacent to Trident. And we also have, I
19 believe, head and neck doctors that are out in
20 that area. MUSC has physicians spread around
21 the region. Some go to Beaufort and Murrells
22 Inlet and so forth. In Nexton right now I don't
23 think there's anything there. It looked very
24 dark when I drove by this morning.

25 Q: Okay. When did you find out that MUSC has



1 medical oncologists and these other specialists
2 out in the north area, kind of near Trident?

3 A: I've known that for a long time.

4 Q: Okay. Go to page 19 in the deposition
5 transcript I just gave you. I'm going to start
6 on line three there, Dr. Jenrette. And I'm
7 going to ask a -- read the question. I'd like
8 you to read your answer. So, my question,
9 starting on line three is, okay. In terms of
10 this kind of making sense to have a network,
11 are there any type of cancer-related
12 specialists in the Berkeley-Dorchester area or
13 North Charleston area now that you're aware of
14 who can go up there and practice, even on a
15 part-time basis. And what's your answer there?

16 A: Well, I think MUSC might have some doctors up
17 in that area, but I'm not sure of the whole
18 breadth and depth 'cause we're kind of spread
19 all around this part of South Carolina, east of
20 I-95.

21 Q: Keep going.

22 A: You know, Trident has its own team of doctors,
23 so I'm sure in the past they've had breast
24 cancer surgeons and GYN cancer surgeons. I'm
25 not sure what else they have at Trident.



1 Q: And keep going.

2 A: Roper has doctors here, there, and everywhere
3 as well. I have no idea what they have all in
4 that area.

5 Q: My question to you was, right. But sitting
6 here today, you're not really sure what MUSC
7 has out in the north area. And your answer is?

8 A: We have medical oncology meets clinics out
9 there.

10 Q: I understand. What's your answer to the
11 question from the transcript I just asked you?

12 A: I said, I wasn't sure of the breadth and depth.
13 I know that we have pockets of doctors spread
14 around, but I didn't know the breadth and depth
15 of it. There may be others besides, you know,
16 head and neck and medical oncology.

17 Q: I asked you, and you can look at line 20,
18 right. But sitting here today, you're not sure
19 of really what MUSC has out in the north area?
20 And your answer was, no, correct?

21 A: Yeah. I don't know the breadth and depth of
22 what they have. I know that there are pockets
23 of doctors out there. I don't personally go
24 out there, so I can't vouch for everything
25 that's out there.



1 Q: Okay. MUSC's patient satisfaction scores are
2 very high when it comes to radiation therapy,
3 somewhere in the 4.5 to 4.9 out of five, right?

4 A: Correct.

5 Q: And you're proud of those scores, aren't you?

6 A: Yeah, they're very important.

7 Q: Okay. And you would agree with me that the
8 patient care is very good downtown, which is
9 reflected in MUSC's solid Press Ganey scores,
10 right?

11 A: I agree.

12 Q: In terms of patient throughput for the
13 treatment on the linac at Nexton, you would
14 agree with me that it's not going to be any
15 faster at Nexton than it would be at MUSC's
16 downtown location, correct?

17 A: Correct.

18 Q: Okay. A couple of questions. We've talked a
19 little bit about HDR, which is not something
20 that is mentioned in the application. When did
21 you find out there wasn't going to be HDR in
22 the project that is at issue here today?

23 A: Well, I didn't know for sure when we met, but
24 based on Dr. Cawley's testimony that I believe
25 he stated that we would put whatever we wanted,



1. I thought that was a very good idea to have
2 HDR. They may conclude it later not to have it
3 there, but I think it would enhance the
4 program. We have HDR downtown, so if patients
5 from Nexton need HDR, they're still going to
6 have it available. They can come downtown.

7 Q: The folks in Mt. Pleasant may have to drive 30,
8 40 minutes to get to the HDR downtown, right,
9 because you don't have it at the HD -- at the
10 Mt. Pleasant location for MUSC, right?

11 A: It doesn't take 30 or 40 minutes to get
12 downtown from Mt. Pleasant, but it takes a few
13 minutes.

14 Q: Are you -- are you serious?

15 A: Yeah.

16 Q: Do you know where Park West is?

17 A: We aren't located in Park West.

18 Q: Yeah. But people who are ---

19 A: Oh, sure. Yeah. Okay. Yeah. If you take our
20 whole catchment area, you can have people at,
21 you know, Awendaw, yes. There's 17 stoplights
22 between Awendaw and downtown and I've hit many
23 of them two or three times.

24 Q: Right, it's a nightmare.

25 A: It can, that's right.



1 Q: All right. I want to talk about the Clinac
2 linac. That's been a favorite topic here in
3 this litigation. Actually, I want to talk
4 about the IX first. The Clinac IX, do you
5 remember that unit?

6 A: I do.

7 Q: Okay. And that was replaced a couple of years
8 ago maybe with a TrueBeam?

9 A: Probably almost four.

10 Q: Okay. Time flies.

11 A: It does.

12 Q: MUSC replaced that Clinac because it was
13 becoming obsolete and it was experiencing more
14 downtime, correct?

15 A: True. And even more importantly, the TrueBeam
16 has more functionality to it. But machines do
17 become obsolete.

18 Q: Fair enough. And it operated pretty much on
19 the same 7:30 to 5:00 p.m. schedule that you
20 were talking about earlier, right?

21 A: It's a busy clinic, yeah.

22 Q: Were you aware that in fiscal year, I think it
23 was 2014 maybe, that the Clinac IX performed
24 over 7,500 treatments that included 3,000 IMRTs
25 and 73 SRS, SBRT treatments?



- 1 A: I don't remember, but that sounds right.
- 2 Q: Is that something you kind of keep up with, the
3 utilization on these machines just ---
- 4 A: I was more concerned about the patient follow
5 through, throughput and that sort of thing. I
6 never was big on counting the number of
7 patients.
- 8 Q: But it was possible to treat 30 patients a day
9 on the Clinac IX, wasn't it?
- 10 A: Probably so. It would take an extended day to
11 treat 30, because, you know, it can --- if it's
12 a simple regular treatment, you could maybe do
13 four an hour if everything goes well. So, four
14 an hour, you'd have to treat over eight hours.
- 15 Q: Right. But if you did seven, that's 28, right?
- 16 A: Treating through lunch, that sort of thing.
- 17 Q: And the TrueBeam that replaced it is faster
18 than the Clinac IX, isn't it? It's got
19 RapidArc?
- 20 A: Well, that's true to certain extents, but there
21 are some things that take a lot longer. So,
22 something like the SBRT of the spine takes
23 about 45 minutes, almost an hour. So, some
24 things take longer.
- 25 Q: Yeah. But you don't do many SBRT spines,



1 right?

2 A: We do a fair amount, yeah.

3 Q: How many?

4 A: Well, I've personally done four, but I've
5 probably done less than anybody else. Bt it's
6 not something that's done very often, but, you
7 know, we've maybe done 10, 15.

8 Q: Right. I mean, MUSC doesn't do any more than
9 about 400 SBRT treatments total per year,
10 correct?

11 A: That's a lot.

12 Q: Okay. Spread over five linear accelerators?

13 A: They don't all do SBRT.

14 Q: Most of them are SBRT capable, correct?

15 A: We don't have five linear accelerators at MUSC.
16 We have three.

17 Q: You have the one in Mt. Pleasant.

18 A: Right.

19 Q: Okay. Is that considered a MUSC linac?

20 A: Uh-huh.

21 Q: Okay.

22 A: It is.

23 Q: And then my understanding is you've got four
24 downtown; is that incorrect?

25 A: That's not right.



- 1 Q: Okay. What have you got downtown?
- 2 A: We have two TrueBeam linear accelerators.
- 3 That's all we have. We have three linear
- 4 accelerators that can do SBRT.
- 5 Q: You have the two TrueBeams.
- 6 A: We have three TrueBeams, two downtown and one
- 7 in Mt. Pleasant.
- 8 Q: Okay. What else do you have? You had a
- 9 tomotherapy and that can do IMRT, right?
- 10 A: That can do IMRT, yeah. It can't do SBRT
- 11 though.
- 12 Q: It can do about 28 IMRTs a day on that
- 13 tomotherapy unit, right?
- 14 A: That's -- I'm not sure they could do 28 in
- 15 tomotherapy. It's quite slow. And the C6, we
- 16 have a C6 that doesn't do any of that.
- 17 Q: You do have the tomotherapy unit and you
- 18 estimated that it could treat about 25 patients
- 19 per day. Is that fair?
- 20 A: Yes.
- 21 Q: Okay. TrueBeams that are properly equipped
- 22 easily perform conventional radiation therapy,
- 23 right?
- 24 A: They can, sure.
- 25 Q: Okay. And if they're properly equipped, they



1 can do IMRT, SBRT, and SRS, correct?

2 A: That's correct.

3 Q: Okay. And IMRT, SBRT, and SRS treatments have
4 been performed at MUSC's TrueBeams and on the
5 Clinac IX going back since before 2015,
6 correct?

7 A: Yes.

8 Q: This isn't brand new technology, right?

9 A: No.

10 Q: Okay. And it wasn't in 2017 either, right?

11 A: No.

12 Q: You would agree with me that in terms of
13 choosing a TrueBeam for the Nexton facility, it
14 made sense to do that, because MUSC has other
15 Varian TrueBeams and MUSC wants to keep them
16 aligned, correct?

17 A: Yes.

18 Q: And they're all compatible with one another,
19 right?

20 A: They are.

21 Q: So, if one goes down, you don't have to re-plan
22 the patient, you can treat them on the other
23 TrueBeam?

24 A: It's a little more complicated than that.
25 There is some re-planning that has to be done,



1 because each machine is calibrated to its
2 output. And so that's a whole bunch of data
3 that has to be gathered. And then the
4 treatment planning computers are uniquely
5 knowledgeable about each of the machines. So,
6 there's some variation, but it's faster than if
7 you had a TrueBeam and a machine by Elekta or
8 somebody else if they're all TrueBeams.

9 Q: Great example, sir. Now, I want to talk about
10 the Clinac 600. That's the one that does just
11 total body irradiation.

12 A: That's all we do on it.

13 Q: Okay. And it does not operate on a daily
14 basis, does it?

15 A: No.

16 Q: Okay. And in fact, the Clinac C6 sits idle
17 most of the time, right?

18 A: Yes.

19 Q: And my understanding from your deposition, that
20 it takes anywhere from 2.5 hours to two and
21 three quarter hours to treat a patient using
22 TBI?

23 A: That is right.

24 Q: Okay. And I believe, looking at some data --
25 we don't have to pull it out, because I think



1 it's already in evidence. But my understanding
2 is that MUSC did roughly about 75, 76 of these
3 TBI procedures in 2018?

4 A: That sounds right.

5 Q: Okay. And TBI is not -- doesn't fall under one
6 of those categories of conventional or SRS or
7 SBRT or IMRT treatments, right?

8 A: It's total body irradiation. It's very
9 complicated.

10 Q: Okay. Does it fall under one of those
11 categories, SRS?

12 A: No.

13 Q: SBRT?

14 A: No.

15 Q: IMRT?

16 A: Nope.

17 Q: How about conventional?

18 A: I guess it would probably be pegged
19 conventional.

20 Q: Okay. And you would agree with me, the Clinac
21 linac Varian 600CD was never upgraded with an
22 electronic portable imaging system, right?

23 A: That's correct. There is a -- we do have a
24 device so that we can take electronic images in
25 it, because we have to be able to draw



1 templates to build blocks to protect the lungs
2 during the treatment. And so we do have an
3 electronic portable imager, but it's not the
4 same as with the -- it's more complicated to
5 use than it is on the TrueBeams.

6 Q: Right. But an electronic portable imaging
7 system was certainly available as an upgrade
8 for the Varian 600 CD?

9 A: I seriously doubt that, but I do not know the
10 answer to that. I seriously doubt that.

11 Q: And multi-leaf collimator was also available as
12 an upgrade to the Varian 600CD?

13 A: I would be amazed if that were possible to do
14 for a Varian C6. I don't think so.

15 Q: Okay. If it was upgraded, that machine would
16 have been able to do 2D and 3D treatments,
17 correct?

18 A: If it could have been upgraded, it could have
19 done that. It could do -- it could do
20 conformed radiation before with cerabin blocks,
21 you know, heavy blocks that had to be slid into
22 a tray. But that machine -- I don't believe
23 it's possible to upgrade that machine to do, to
24 have multi-leaf collimating, portal imaging
25 cone beams, I don't believe that it's possible.



- 1 Q: But if it were possible?
- 2 A: Okay. In a world where it were possible, then
- 3 it would be able to do additional things than
- 4 what it does right now, right.
- 5 Q: Okay. Do you know a lady named Beth Haas?
- 6 A: I do know Beth Haas.
- 7 Q: How do you know Beth?
- 8 A: She used to work at MUSC.
- 9 Q: In what role?
- 10 A: She was a dosimetrist there.
- 11 Q: Okay. The unit that housed -- houses the
- 12 TrueBeam that, I believe, replaced the Clinac
- 13 IX -- the Clinac IX was located in the vault
- 14 right next to the Varian 600CD, right?
- 15 A: It is.
- 16 Q: Okay. And you took the Clinac IX out and you
- 17 replaced it with the TrueBeam?
- 18 A: Yes.
- 19 Q: And my understanding is that both of those
- 20 vaults were built at the same time and the same
- 21 exact size.
- 22 A: That is definitely not true.
- 23 Q: Are you sure?
- 24 A: They're not the same size. I'm definitely sure
- 25 of that.



1 Q: Do you know what the square footage of the
2 TrueBeam vault is that sits right next to the
3 Clinac linac?

4 A: I don't know the exact number of square feet,
5 but the room is much smaller. And the
6 configuration -- MUSC -- again, this is
7 reconfiguring a 1954 building, so part of the
8 problem is there are posts that support the
9 rest of the hospital over us that can't be
10 removed. And we've had the Varian engineers to
11 come in and look at the room. There's no way
12 that a TrueBeam could go into that room.

13 Q: But you are aware of ---

14 A: We would have something. We would love to have
15 something in there.

16 Q: At the time of your deposition, you said there
17 was something that would be able to fit.

18 A: I've never seen it. I heard tell that there
19 may be a new machine that could do it, but it's
20 yet to be proven whether it would fit in there
21 or not.

22 Q: Do you know the square footage of the vault
23 that houses the Clinac linac?

24 A: No. I don't know the square footage of any of
25 our vaults.



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1 Q: Okay. Would you agree with me that, without
2 the software package, the stereotactic package,
3 that the TrueBeam that MUSC has at least told
4 the Department it's going to include or to
5 place into its Nexton center is going to be
6 somewhat of a lesser model TrueBeam as of now?

7 A: I was not aware of that. I thought that it
8 would be able to do stereotactic radiosurgery.

9 Q: Okay. But you now are aware that it doesn't do
10 that, right?

11 A: I'm not sure, because the machine hasn't been
12 purchased. I'm not aware of that.

13 Q: Well, are you aware of MUSC's representation in
14 the CON application that initially the unit,
15 the TrueBeam unit that's being purchased, is
16 not going to be stereotactic capable?

17 A: I really haven't looked at that, so I don't
18 know that.

19 Q: Did you wonder why, when Mr. Westbrook was
20 questioning you about whether you were going to
21 have it or get it or want it, why he was asking
22 you those questions? Could it be because it's
23 not stereotactic capable, at least in terms of
24 what was written in the application?

25 A: I suppose it might not or maybe the application



1 was written wrong. I thought that all the
2 TrueBeams could do stereotactic radiosurgery --
3 stereotactic body radiosurgery, which is
4 different than stereotactic radiosurgery, which
5 we would never do with any TrueBeams, because
6 that's for brain tumors and we have a Gamma
7 Knife.

8 Q: Well, my understanding is your testimony is
9 that you'd have to get a \$200,000 software
10 package to do SBRT.

11 A: If it doesn't have that package, which I
12 thought, when I looked at it, that it did
13 include that, so I can't answer you that.

14 Q: Okay. Now, you would agree with me, Dr.
15 Jenrette, that on average an IMRT and a
16 conventional treatment take about 15 minutes,
17 correct?

18 A: Typically for IMRT, yeah.

19 Q: And conventional treatments as well?

20 A: Yes.

21 Q: Okay. And MUSC can perform, I believe your
22 testimony at your deposition was four IMRT
23 procedures per hour; does that sound about
24 right?

25 A: It sounds right, yes.



1 Q: You would agree with me that having RapidArc
2 technology on a TrueBeam greatly decreases the
3 time it takes to treat someone, doesn't it,
4 compared to other units?

5 A: It doesn't seem to make it less than 15
6 minutes. The problem is with IMRT, that for
7 things like prostate cancer, there may be eight
8 or ten different fields. And to treat each
9 field without IMRT would take about five or six
10 minutes. So, to treat a prostate would take
11 maybe 45 minutes. With RapidArc and a
12 TrueBeam, it puts it back in the 15 minute time
13 slow.

14 Q: And that's where you try to get your patients,
15 you try to get them in and out as fast as you
16 can, correct?

17 A: Well, it's more accurate if the patient doesn't
18 have to lie there very long. The patients tend
19 to move. And if they move, then the
20 treatment's inaccurate.

21 Q: All right. And at your deposition I believe
22 you testified an SBRT can take 20 to 30 minutes
23 per on average?

24 A: They take longer. I would say 20 to 30 minutes
25 would be typical and some things, as I said



1 earlier with the spine, it may take 45 minutes.

2 Q: On average would you say it's 20 to 30 minutes
3 for an SBRT?

4 A: Average I'd say 20 to 30 is correct.

5 Q: Okay. And an SBRT is basically two to five,
6 maybe six treatments for a patient and not kind
7 of the extended treatments for other types of
8 cancers?

9 A: That's right.

10 Q: And in an SRS -- let me ask you this. I don't
11 know that I ever got this from your deposition
12 or just otherwise, but I think I understand you
13 to say that MUSC's radiation oncologists aren't
14 doing a whole lot of SRS on the linac units,
15 the brain tumors, because you take care of
16 those on a Gamma Knife. Is that fair?

17 A: And other doctors do as well.

18 Q: Okay. How many -- do y'all do any SRS on any
19 of the units in Mt. Pleasant or downtown?

20 A: We don't do SRS on any of the linacs for brain
21 tumors. We do SBRT on all three of our
22 TrueBeams.

23 Q: Okay. You would agree with me that the team at
24 Trident, who all, as I understand it, trained
25 at MUSC under you and others, are very good



1 radiation oncologists?

2 A: I think they're good radiation oncologists.
3 They're people I've known a long time.

4 Q: Dr. MacDowell, Dr. Collins, and Dr. Williams?

5 A: Yes.

6 Q: Okay. And you would agree with me that the
7 quality of care at Trident in general is
8 excellent, right?

9 A: Well, I don't have any direct observation, so
10 that would be anecdotal for me to say that I
11 know that.

12 Q: And that's what you testified at your
13 deposition, right?

14 A: Well, I presume that they provide good care.

15 Q: You trained them, right? I mean, you have
16 confidence in your abilities to train ---

17 A: I certainly do, but they did train 20-plus
18 years ago. Some of them, I think, were 25
19 years ago, so ...

20 Q: And Dr. Williams was on clinical staff at MUSC?

21 A: A few years he was on the clinical staff.

22 Q: He taught others how to deliver radiation
23 oncology?

24 A: He did indeed, yes.

25 Q: Now, would you agree with me that you might not



1 be aware of every medical oncologist,
2 urologist, GYN, GI physician, surgeon, and
3 other MUSC physicians who refer patients to
4 Trident?

5 A: I don't have any way to know.

6 Q: Right. Because you don't personally track
7 referrals of your colleagues out of the Health
8 System, right?

9 A: That's correct.

10 Q: Okay. At your deposition I believe you
11 testified that how people get referred for
12 radiation therapy for their cancer, that people
13 enter into health systems, which are united by
14 things like EMR, continuity of care, through
15 tumor boards, and physician relationships, and
16 the like; do you recall that?

17 A: Yes.

18 Q: Okay. And you would agree with me that MUSC
19 has very good technology with respect to
20 telehealth and even uses telehealth for its
21 tumor boards, right?

22 A: I would agree.

23 Q: You would agree that a patient, who may go to
24 MD Anderson in Houston for a work-up, for a
25 cancer work-up, can come back to MUSC and get



1 radiation therapy and get very good care at
2 MUSC, right?

3 A: I think so.

4 Q: Okay. And I believe when you testified, you
5 actually talked about how you referred a
6 patient up to Lancaster, South Carolina,
7 because they've got a radiation therapy
8 facility in that little town, right?

9 A: I don't remember that testimony, but they do.

10 Q: You don't recall your testimony where you
11 thought you'd referred a patient to a linear
12 accelerator in the Lancaster, South Carolina
13 area?

14 A: I don't remember that in the deposition, but if
15 it's in the deposition, I must have.

16 Q: Let me ask you this. Do you remember -- do you
17 actually remember referring a patient up that
18 area, I believe to York, but then you found out
19 there was a radiation therapy center in
20 Lancaster?

21 A: No. I think what I was talking about was
22 several years ago that I had a patient that
23 lived in Lancaster and I sent them to -- I
24 called the place in York and -- you know, in
25 York, South Carolina and found out they had a



1 place -- in Rock Hill, South Carolina, but
2 found out that they had a center in Lancaster,
3 South Carolina. I haven't referred a patient
4 to Lancaster any time recently.

5 Q: Okay.

6 A: That I can recall.

7 Q: But you referred a patient somewhere up to the
8 York area and then found out that there was a
9 radiation therapy center in Lancaster?

10 A: I have, yes.

11 Q: Okay. So, you yourself refer patients out to
12 get radiation therapy at other centers,
13 correct?

14 A: I do.

15 Q: Okay. Would you agree with me that patients
16 from all across South Carolina can be presented
17 to the MUSC tumor boards through telehealth?

18 A: It's feasible that some can. I don't think all
19 can. I think specialized cases could. We
20 don't have the capacity to offer telehealth to
21 every single patient. But I think with
22 specialized cases, that's part of the goal of
23 telehealth.

24 Q: You've got your deposition transcript right
25 there. And if you turn to page 92 in that.



1 And let me know when you get to that page,
2 Doctor.

3 A: Okay. I'm at it.

4 Q: Okay. Look at the bottom of 92. I'm going to
5 ask you -- this is part of your answer to a
6 question I asked, which starts off with, tell
7 me about telehealth radiation oncology services
8 at MUSC. And that starts on line 12 and 13.
9 And you talked about the initiative and that
10 type of thing. If you go down to line 24,
11 could you read your answer onto the next page,
12 onto 93, and then stop when you get to the next
13 question?

14 A: Okay. The tumor boards that I go to do not
15 participate in telehealth medicine but some of
16 them do, and so patients can be presented from
17 all over South Carolina into these tumor
18 boards, or it can be other things that can be
19 done. It's a -- it's something I think that
20 was actually part of the Affordable Care Act
21 that telehealth would become something that
22 would be made available.

23 Q: Okay. So, MUSC got a 20 million dollar grant
24 from the State of South Carolina for its
25 telehealth program, didn't it?



1 A: I don't know how much.

2 Q: Okay. Are you aware that they did get a big
3 grant?

4 A: I knew they had a big grant, but I didn't know
5 how many millions.

6 Q: Well, it's a million here, a million there.

7 A: A lot of money.

8 Q: And you would agree with me that other
9 radiation therapy centers partner up with MUSC
10 and present cases and that would be a way to
11 expand best practices and healthcare into the
12 community?

13 A: I think so.

14 Q: Okay. It could also help reduce cost of
15 patients maybe don't have to drive all the way
16 to MUSC, who would otherwise come to MUSC,
17 right?

18 A: It could, yes.

19 Q: I think you -- when I deposed you, you said the
20 clinical -- that the number of patients in
21 clinical trials was about 12 to 15 percent. I
22 think you repeated that today with Mr.
23 Westbrook. So, you would agree with me that,
24 you know, kind of the converse of that, that
25 means that roughly 85 to 88 percent of the



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1 patients at MUSC aren't enrolled in a clinical
2 trial as a cancer patient, correct?

3 A: That's right.

4 Q: And I think you mentioned that, from a clinical
5 trial standpoint, there are some patients that
6 don't want a clinical trial, right?

7 A: That's true.

8 Q: Because it may involve a new treatment and they
9 may be in the control group, right?

10 A: That's true.

11 Q: And what it means to be in the control group,
12 just for the record, means you may not get the
13 brand new medication that's being studied,
14 right?

15 A: Right. Because we don't know whether the brand
16 new medication works. That's the purpose of
17 the clinical trial.

18 Q: Exactly. It's experiment ---

19 A: So, there's no advantage to being the --
20 there's no advantage be in the either or.

21 Q: Well, unless you're dying, there's no cure, and
22 this one may be the cure, right, this
23 particular drug?

24 A: If we knew that there was a cure, then it
25 wouldn't be a clinical trial. It would be a



1 treatment.

2 Q: Exactly. I couldn't have said it better
3 myself. So, it's experimental, right?

4 A: It's a clinical trial.

5 Q: Exactly. Now, you would agree with me that
6 you're not an expert in prostate cancer
7 treatment, correct?

8 A: I have treated many men with prostate cancer,
9 but not many men in the last 20 years. So, in
10 terms of modern treatment, yes, I am not.

11 Q: Okay. And you haven't read up on
12 hypofractionated treatment of prostate cancer,
13 correct?

14 A: No. I haven't read any scientific information
15 about prostate cancer recently.

16 Q: Okay. And I believe you testified at your
17 deposition that MUSC, you said you don't think
18 they actually perform hypofractionated
19 treatment of the prostate.

20 A: I don't think so.

21 Q: Okay.

22 **MR. THOMAS:** Can we put up Respondent's 58, please.

23 **(Respondent MUSC's Exhibit Number 58 was introduced**
24 **into the record at this time.)**

25 Q: You were asked some questions -- I'll set this



1 up while she's getting the exhibit up. But you
2 were asking questions about radiation
3 oncologists and rotating out to the Nexton
4 site, right?

5 A: Yes.

6 Q: How many days a week will Dr. Goetowski be
7 rotating out to the Nexton site?

8 A: None. He doesn't work for us anymore.

9 Q: Okay. But he's on this slide, right?

10 A: This is the first time I've seen this slide,
11 but he certainly is.

12 Q: So, nobody cleared this slide with you before
13 they -- before it was put into evidence, right?

14 A: That's correct.

15 Q: And are these other seven that are here, are
16 they still on staff at MUSC?

17 A: Yes.

18 Q: Okay. And do any of them actually work on the
19 -- work at Georgetown?

20 A: Yes. Dr. Thurmond at the bottom second from
21 the right, she works in Murrells Inlet, closest
22 center Georgetown.

23 Q: Will she be rotating out to the Nexton site?

24 A: I don't anticipate that. It could change. Her
25 position could change.



1 Q: Okay.

2 A: But I don't anticipate that.

3 Q: Okay. So, now we're -- we've got six, right?

4 A: Wait. Why do you have an X by my name?

5 Q: We shouldn't. The X should be on Dr.

6 Goetowski.

7 A: Okay. Thank you.

8 Q: Now, we're gonna put a yellow S there because

9 you're about to retire, right?

10 A: Somebody's going to replace me. Two people are

11 going to replace me.

12 Q: Two people. That's pretty for the ego. It

13 takes two to do the work of one. Okay. So,

14 anybody else that may not rotate out to --

15 **MR. THOMAS:** It's the far right on the top.

16 **MS. MITCHELL:** I'm sorry.

17 **MR. THOMAS:** That's okay.

18 **MS. MITCHELL:** I was trying to figure that out.

19 Q: Anybody else who's not going to rotate on that

20 list out to Nexton?

21 A: I anticipate all the others having rotational

22 days out there.

23 Q: Okay.

24 A: Although, you know, I won't be the chairman

25 then, but that's how I would set it up.



1 Q: Okay. And in terms of, I mean, somebody's
2 going in for prostate cancer. I keep using
3 that. I know that from when my Dad had -- what
4 he did.

5 A: Yeah.

6 Q: And he had to go every day, five days a week,
7 for prostate cancer; Monday, Tuesday,
8 Wednesday, Thursday, Friday. And he did that
9 for a number of weeks. Right?

10 A: Yes.

11 Q: Okay. You would agree with me there's not
12 going to be a prostate cancer specialist out at
13 the Nexton site on every day of the week?

14 A: It doesn't make any difference.

15 Q: I'm just asking you the question. Will there
16 be a prostate cancer radiation oncologist
17 specialist at Nexton every day of the week?

18 A: No.

19 Q: Okay. And there wouldn't be a specialist in
20 prostate -- you know, gynecological cancer
21 radiation oncology every day of the week
22 either, right?

23 A: It doesn't make any difference.

24 Q: That's not what I'm asking you. I'm asking the
25 question if there would be.



1 A: No.

2 Q: Okay. And, in fact, there can only be one
3 specialist at a time in a subspecialty
4 radiation oncology out there, right?

5 A: Well, I suppose there could be a clinic where
6 two different doctors go out there on the same
7 day, but I envision there just being one to go
8 out there.

9 Q: Okay. Now, MUSC also staffs the Orangeburg
10 facility as well?

11 A: We do. We have a professional services
12 agreement. That was Dr. Goetowski, who
13 resigned about a year ago. And I haven't
14 filled that position yet, so we have locum
15 tenens doctor out there right now.

16 Q: What is that doctor's subspecialty?

17 A: He has a lot of experience in stereotactic
18 radiosurgery and Gamma Knife, but we do not
19 have that there, so he's a generalist.

20 Q: Okay. And you're fine with a generalist being
21 out in Orangeburg at least for the treatment of
22 the patients until you can find somebody else?

23 A: Yes.

24 Q: Fair statement? Okay. Bear with me. I'm on
25 the home stretch here, Doctor. You were asked



1 about clinical trials. And I'm -- just out of
2 curiosity, how many of the clinical trials at
3 MUSC, I think, are going on right now that
4 originated there? I believe there was
5 something -- my understanding was 300. I saw
6 a slide that said 300 cancer-related clinical
7 trials, MUSC; Trident, none. So, how many of
8 those clinical trials at MUSC originated there?

9 A: Most not. Most of them are national
10 cooperative trials that we participate in.

11 Q: Okay. When you say most not, I mean, the vast
12 majority?

13 A: Yeah, I would think probably 90 percent are
14 national cooperative trials.

15 Q: So, does that mean that a patient who comes to
16 MUSC can somehow, perhaps, get in there if they
17 qualify and they want to do it and everything
18 else?

19 A: I'm not sure I understand what you're asking.

20 Q: Well, if a patient comes to MUSC and there's a
21 clinical trial that's available, but it may not
22 have originated there, MUSC has a pathway to
23 get that patient in. Is that a fair ---

24 A: Yeah. That's the whole point that we are in
25 these cooperative clinical trials groups, so



1 they can participate.

2 Q: Okay. Now, I heard some testimony about the
3 surgical oncologists and the -- that they only
4 do surgical oncology.

5 A: Yes.

6 Q: Did you go around to each surgical oncologist
7 and ask them if they did any type of surgeries
8 outside of that surgical oncology specialist?
9 Did you check with them?

10 A: No. I did not verify that, but I believe that
11 it's a true statement.

12 Q: Okay. While you were talking about that, or
13 testifying about that, I just pulled up a
14 doctor. Is Dr. Terrence Day one of those
15 surgical oncologists?

16 A: He is.

17 Q: Okay.

18 **MR. THOMAS:** And it's just a demonstrative, Your
19 Honor. I pulled this off the website, US News
20 & World Report, which is a website that I
21 believe MUSC wouldn't object to, because they
22 talked about the top rankings and everything.
23 But I looked at the bottom and it says, what
24 are Mr. Day's specialties. And the description
25 is, you know, that otolaryngologists specialize



1 in disorders of the head and neck ranging from
2 hearing loss to cancer. And it says
3 subspecialties under Dr. Day is general
4 otolaryngology/ENT, head and neck plastic
5 surgery, head and neck oncologic surgery. Do
6 you see that?

7 A: I do.

8 Q: So, are you sure that Dr. Day doesn't do an
9 occasional, you know, deviated septum or nose
10 job?

11 A: I'm pretty sure he doesn't.

12 Q: Did you talk to him about it?

13 A: I have not.

14 Q: Okay. Which surgical oncologist out of the 20
15 that were on there did you have a conversation
16 with to ask them, you're only doing surgical
17 oncology, correct?

18 **MR. WESTBROOK:** Objection. Mischaracterization of
19 his testimony. He never said that every -- the
20 question was, do you work with -- are you aware
21 of any surgical oncologists you work with who
22 do anything other than cancer surgery and he
23 said no. That was his testimony.

24 Q: Of those surgical oncologists that you work
25 with, is it the 20 that were on there or do you



1 just work with a limited number, given your
2 kind of specialty in the brain and Gamma Knife?

3 A: Well, I know all these surgeons quite -- I know
4 most of these surgeons quite well. There are
5 some that are newer that I haven't met or I
6 haven't worked with. But the intents of their
7 career is that they're cancer specialists.

8 Q: Okay.

9 A: They're trained to do other things, but I don't
10 believe that they do.

11 Q: That's your belief, but you're not a hundred
12 percent sure. You can't say under oath today
13 on the stand right there that they do 100
14 percent cancer ---

15 MR. WESTBROOK: Objection to the extent that's
16 trying to characterize prior testimony. It's
17 a Mischaracterization.

18 MR. THOMAS: I don't think so. I just asked ---

19 THE COURT: He's just asking a question.

20 MR. WESTBROOK: Okay. If that's all he's doing. I
21 just thought ---

22 THE COURT: He just asked a question. Now, he may
23 or may not know and that's fine. Answer the
24 question, sir.

25 A: Can you repeat it?



1 Q: Yeah. Sitting in the stand today, you don't
2 know with a hundred percent accuracy,
3 precision, that the cancer surgeons that you
4 work with only do cancer surgery?

5 A: Not 100 percent precision.

6 Q: One of the things that -- you were asked by Mr.
7 Westbrook about a scenario -- two scenarios, I
8 believe. One is that, you know, Trident -- or
9 MUSC sends its physicians to Trident to give
10 radiation oncology. And the other is that they
11 build MUSC Nexton. Do you remember that line
12 of questioning?

13 A: I do.

14 Q: And I think what you mentioned was, even -- if
15 a patient goes outside of that system, there's
16 a problem maintaining continuity of care,
17 correct?

18 A: That's correct.

19 Q: All right. And you stated that -- well, one of
20 your concerns is the patient could get lost,
21 right, and that the chances are minimalized
22 about patients getting lost if they're inside
23 a system, right?

24 A: That's true.

25 Q: Okay. Have you reviewed any studies about the



1 patient's chances of getting lost in a
2 healthcare system if they're sent outside the
3 system for, say, radiation oncology?

4 A: I haven't read any studies.

5 Q: Okay. And the fact is, you don't refer a lot
6 of patients outside of the system, do you?

7 A: Well, I have patients from towns across South
8 Carolina that I refer patients to. I don't
9 know whether they get lost though once they
10 leave. I have no idea.

11 Q: In fact, you're not sure of what the lost rate
12 would be if a patient goes outside of the
13 Health System. You can't give me a rate today
14 sitting in that stand today, can you?

15 A: I can't give you a rate.

16 Q: Okay. Now, I think in the Nexton area you
17 testified that one third of the patients that
18 are treated at MUSC come from that particular
19 area.

20 A: I believe that's correct, yes, sir.

21 Q: Where did you get that information?

22 A: Well, from my office, they had to gather a lot
23 of information for this trial. And I learned
24 it through them.

25 Q: Okay. But prior to this trial, you didn't



1 really know that a third came from the Nexton
2 area, right?

3 A: Well, we looked at this a few years ago and it
4 was about the same amount then, I think, about
5 a third.

6 Q: What radius, in terms of miles, from the Nexton
7 spot do those 30 percent of patients come from?

8 A: Well, I think it's the Tri-County, Charleston,
9 Berkeley, and Dorchester Counties, primarily is
10 what we were looking at, those ZIP codes.

11 Q: Fair enough. That's all the questions I have
12 for you, Dr. Jenrette. Thank you.

13 A: Yes, sir.

14 MR. WESTBROOK: Just a couple on Re-Direct, Your
15 Honor.

16 THE COURT: I assume DHEC does not have any
17 questions.

18 MR. WICEVIC: No questions, Your Honor.

19 MR. WESTBROOK: If I could beg The Court's
20 indulgence just a moment, please, sir. All
21 right. I am told -- I'm about to certainly go
22 beyond my area of expertise, but I am told that
23 we need to switch ---

24 THE COURT: We have done that.

25 MR. WESTBROOK: We have?



1 THE COURT: Yes.

2 MR. WESTBROOK: Anticipating my request.

3 THE COURT: Well, you start talking to your IT guy,
4 I'm making a guess.

5 (Off the Record)

6 MR. WESTBROOK: All right. So, we're ready to go.
7 All right.

8 DR. JENRETTE - REDIRECT EXAMINATION BY MR.
9 WESTBROOK:

10 Q: Just a couple of questions, Dr. Jenrette. So,
11 Mr. Thomas asked you about rotating radiation
12 oncologists to Nexton. That was follow-up on
13 some questions I believe that I had asked you
14 on Direct. And in particular he used prostate
15 as an example, whether there would be a
16 prostate radiation oncologist every day of the
17 week at Nexton. So -- and I think you said the
18 answer was no to that, was no, correct?

19 A: Yes.

20 Q: So, is that significant? And if so, why not?
21 Why or why not?

22 A: No. It doesn't make any difference. The
23 treatments are delivered by people who are
24 called therapists who have college degrees in
25 learning how to use the equipment. I do not



1 know how to use the equipment. It would be a
2 mistake for me to try to do that. So, the
3 treatments are planned, coordinated, scheduled
4 and so forth by the experts. And the
5 treatments are delivered by the people who are
6 trained to run the machines per the directions
7 of the physicians who develop the plan.

8 Q: So, the treatment -- I'm sorry. Were you
9 finished?

10 A: I am now.

11 Q: Treatment planning, would that be what you
12 would be focused on?

13 A: Yes.

14 Q: All right. And other physicians?

15 A: Yes.

16 Q: And then the technologists would actually apply
17 the treatments?

18 A: The therapists do, yes.

19 Q: The therapists do. All right. And is that the
20 way it works downtown MUSC?

21 A: Yes. That's the way it works downtown.

22 Q: So, a patient of yours -- a radiation oncology
23 patient of yours, do you see them every day
24 that they're getting treatment, every one of
25 your patients?



1 A: No. Most days I don't see them.

2 Q: Is there any need for you to see them?

3 A: No.

4 **MR. THOMAS:** Objection, Your Honor. I'm sorry.
5 That's kind of the toothpaste out of the tube,
6 but he says he doesn't really do a whole lot of
7 radiation oncology anymore. About 95 percent,
8 maybe higher, so, he's talking about Gamma
9 Knife. My understanding is Gamma Knife gets
10 one treatment, kind of one and done type thing.
11 So, he wouldn't be in a position to know if he
12 sees his patients.

13 **MR. WESTBROOK:** Well, I can lay a foundation more,
14 but I will add that he's already been qualified
15 as an expert in radiation oncology. He's been
16 teaching and been practicing radiation oncology
17 for 36 years. I think he said -- earlier he
18 testified that he had several thousand patients
19 ---

20 **THE COURT:** Well, I think you have to phrase that
21 question in that line.

22 **MR. WESTBROOK:** All right.

23 **THE COURT:** What he knows about the practice.

24 **MR. WESTBROOK:** All right.

25 **THE COURT:** Not what he does.



1 MR. WESTBROOK: Okay..

2 THE COURT: He's an expert and he can answer that if
3 he knows.

4 Q: So, Dr. Jenrette, 95 percent of your work these
5 days is with the ---

6 A: Gamma Knife.

7 Q: --- Gamma Knife. That's the word I'm looking
8 for, Gamma Knife. But let me ask you about
9 your 36 years. How long have you been doing 95
10 percent of your work on the Gamma Knife? How
11 long has that been going on?

12 A: Just in the last few years.

13 Q: All right. And before that what kind of
14 machines did you work on?

15 A: Linear accelerators.

16 Q: And I believe we talked about this earlier, but
17 how long have you been head of the radiation
18 oncology department?

19 A: Overall in three different segments about 22
20 out of my 36 years, about two thirds.

21 Q: All right. Tell us about your familiarity with
22 the way that linear acceleration -- excuse me,
23 linear accelerator treatments are provided.
24 What knowledge do you have of that?

25 A: Well, I have a direct knowledge. That's what



1 I do for my living. The patients are treated
2 on linear accelerators by therapists who run
3 the machines. And the physician's not at the
4 machine, other than a specialized case like an
5 SBRT, where he or she has to approve images.

6 Q: The radiation oncologists in your department
7 who provide linear accelerator treatments, who
8 do they directly report to?

9 A: I'm sorry. Could you say that again?

10 Q: Yes. The radiation oncologists in the MUSC
11 Department of Radiation Oncology who provide
12 treatments on linear accelerators, who do they
13 directly report to?

14 A: They report to me. I'm the chairman.

15 Q: All right. And as chairman also, do you sit in
16 on, or have you sat in the past on any tumor
17 boards related -- involving linear accelerator
18 treatments?

19 A: Yeah, of course.

20 Q: What about multi-specialty teams?

21 A: Yeah, of course.

22 Q: Given all of that, I would -- I've now
23 forgotten my original question. But maybe that
24 was Mr. Thomas' underlying plan. But the
25 question is, is it necessary or is there a need



1 for radiation oncologist to be present at every
2 radiation therapy treatment that his patient --
3 his or her patient receives?

4 A: No, it is not.

5 Q: All right. Now, Mr. Thomas also asked you some
6 questions about surgical oncologists there
7 towards the end. And in particular he asked
8 you about Dr. Day and he brought up a
9 demonstrative that had some things about Dr.
10 Day. I'm going to ask my friend, Dan, to put
11 up on the screen something that we just pulled
12 about Dr. Day from the MUSC website. First of
13 all, do you recognize that? Is that Terry Day?

14 A: That is he.

15 Q: Is that the guy we're talking about?

16 A: Yes, it is.

17 Q: And he's an ENT, right?

18 A: He is.

19 Q: So, he's a surgical oncologist?

20 A: I believe he is, yes.

21 Q: All right. Let's scroll down to the bottom of
22 the page. First of all let me -- I'm sorry.
23 Let me go back for a second before we get into
24 Dr. Day's biography. Is this --

25 MR. WESTBROOK: Scroll up to the top of the page if



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ROA_1190

- 1 you will, Bupp.
- 2 Q: Do you recognize that logo up there?
- 3 A: Yes. That's the MUSC logo.
- 4 Q: All right. And MUSC Health is the clinical arm
- 5 of MUSC; is that right?
- 6 A: Yes.
- 7 Q: Okay. So, let's scroll down to the bottom. It
- 8 talks about his biography. And I don't think
- 9 we need to go into where he went to med school
- 10 and all of that, but let's look at the bottom
- 11 last paragraph, what Dan has just highlighted.
- 12 Would you read that first -- yeah, it's two
- 13 sentences. Why don't we -- I think you can
- 14 just read the first sentence into the record,
- 15 please.
- 16 A: Since completion of his fellowship, Dr. Day has
- 17 limited his clinical practice to patients with
- 18 tumors of the head and neck region, including
- 19 robotic surgery, oropharyngeal, skull base,
- 20 thyroid, skin cancer and salivary gland tumors.
- 21 Q: All right. Is that statement consistent with
- 22 what your understanding of Dr. Day's practice
- 23 was?
- 24 A: That is my understanding about his practice.
- 25 Q: It is? And all of that involves cancer



1 treatments; is that correct?

2 A: That is cancer treatment.

3 MR. WESTBROOK: No further questions. Thank you.

4 THE COURT: Dr. Jenrette, I appreciate you being
5 here. I hope you fully recover from the ---

6 DR. JENRETTE: Thank you. I'm sorry to delay the
7 case so long.

8 THE COURT: That's okay.

9 DR. JENRETTE: This trial so long.

10 THE COURT: It worked out for the best for all of
11 us, I'm sure. You may step down.

12 DR. JENRETTE: Thank you.

13 THE COURT: Now, we are close to the lunching hour.

14 MR. WESTBROOK: Yes, sir.

15 MR. THOMAS: I would love to participate in a
16 lunching hour, Your Honor, if that's an option.

17 THE COURT: We'll take -- it's a little after 12:00.
18 What's your pleasure about returning?

19 MR. THOMAS: 1:30ish?

20 MR. WESTBROOK: 1:30 is okay with us, I think.
21 Again, I'd like to get through today, so
22 depending on how long Mr. Thomas thinks his
23 witness is going to go, but ---

24 MR. THOMAS: We can practice over the lunch hour.

25 THE COURT: Mr. Westbrook, I assume -- I'm making an



1 assumption that you have finished.

2 **MR. WESTBROOK:** I am about to say that MUSC rests,
3 Your Honor.

4 **THE COURT:** So, then we're down to a single rebuttal
5 witness, which we'll take up at 1:30.

6 **MR. THOMAS:** Sounds good, Your Honor.

7 **MR. WESTBROOK:** Thank you, Your Honor.

8 **THE COURT:** We are adjourned until then.

9 (Off the Record)

10 **THE COURT:** We are back on the record on case number
11 17-07-0100 (sic). Mr. Thomas, I believe it's
12 up to you, sir.

13 **MR. THOMAS:** Yes, Your Honor. I've got one rebuttal
14 witness to call, Mr. Dan Sullivan.

15 **THE COURT:** He's half way to the stand, so it would
16 disappoint him if you didn't call him.

17 **COURT REPORTER:** Mr. Sullivan, again, please state
18 your full name for the record.

19 **MR. SULLIVAN:** Daniel Joseph Sullivan.

20 **DANIEL J. SULLIVAN,** having been duly sworn,
21 testifies as follows:

22 **MR. SULLIVAN - DIRECT EXAMINATION BY MR. THOMAS:**

23 Q: Good afternoon, Mr. Sullivan.

24 A: Good afternoon.

25 Q: We're going to go over some of the things that



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1 have been testified about in the Respondents'
2 case in chief, but mainly with Mr. Levitt. You
3 were here for Mr. Levitt's testimony yesterday?

4 A: I was.

5 Q: You heard him speak about DHEC adding PRCs or
6 project review criteria to the list of most
7 important criteria in the deemed complete
8 letter. Has that been your experience as a
9 healthcare planner in the State of South
10 Carolina?

11 A: It has not. I mean, I actually haven't tried
12 to do that in the last three or four years.
13 But in several other projects earlier we had
14 requested changes in the criteria and were
15 generally just ignored. There was no response
16 from DHEC.

17 Q: Okay. In terms of adverse impact, you heard
18 Mr. Levitt yesterday state that there was no
19 evidence presented with adverse impact. Do you
20 agree with that statement?

21 A: I don't.

22 Q: Can you give The Court some examples of
23 evidence that was presented ---

24 A: Sure.

25 Q: --- regarding adverse impact?



1 A: Sure. You know, for example, Mr. Gallati
2 testified about his concerns with the fact that
3 the Medical University was going into a
4 building that was owned by Palmetto Primary
5 Care. Now, Dr. Cawley testified that he wasn't
6 sure that Palmetto Primary Care was still the
7 owner. But I think he did testify that they
8 had an exclusive arrangement with whomever the
9 building owner was, that other specialists,
10 that would be the same types of specialists
11 that they were proposing to put in the
12 building, could not receive leases there. And
13 so I think he raised some legitimate concerns
14 about a potential redirection of referrals away
15 from Trident for cancer services and coupled
16 with, I think, Dr. Cawley's testimony that they
17 plan to put a range of different oncological
18 specialists out in that area. You know, I
19 think that certainly presents a potential
20 adverse impact for the project.

21 Q: What's your understanding of who one of the
22 largest referral sources is for Trident?

23 A: I believe Mr. Gallati said that there were over
24 a hundred physicians in that practice and they
25 were, I believe he said, the largest single



1 referral source for their oncology program.

2 Q: What's the name of the practice?

3 A: Palmetto Primary Care.

4 Q: All right. Do you feel in any way that adverse
5 impact is of somehow lesser importance because
6 it is not specifically alluded to in Standard
7 or not part of what has been considered the
8 most important criteria for this project?

9 A: I don't.

10 Q: Can you explain why not?

11 A: Sure. As Mr. Levitt testified, virtually every
12 chapter in the South Carolina State Health Plan
13 has the statement at the end that the benefits
14 of improved accessibility will be weighed
15 equally with the adverse effects on existing
16 providers. And that's one of the fundamental
17 underpinnings of the South Carolina CON law.
18 So, I mean, I think that adverse impact is a
19 part of every project. And certainly it has a
20 direct tie-in to the issue of community need,
21 which is -- I think in every case I've been
22 involved in, that's been cited as one of the
23 most important criteria, because community need
24 has to be balanced with the positive benefits
25 associated with approving a new project weighed



1 against the impact on existing providers.

2 Q: And while you're talking about community need,
3 is there a difference between what Standard 7
4 in the linac standards addresses and what the
5 community need project review criteria is?

6 A: In my opinion, there is a difference.

7 Q: Could you explain to The Court what that
8 difference is?

9 A: Sure. I mean, don't want to put words in Mr.
10 Levitt's mouth, but I think that -- what I
11 gathered from his testimony that his feeling
12 was, and he used the term a toggled, you know,
13 that if you meet criterion 7, then like a
14 toggle switch goes off and then you
15 automatically meet the community need
16 criterion. Because if you satisfy the need
17 under Standard 7, then you meet the community
18 need. And I just disagree with that. I think
19 that's one element of community need. But I
20 think community need is broader. I think it
21 includes consideration of who the other
22 providers are in the market, where they're
23 located, what their utilization levels are, how
24 the community is going to benefit from the
25 approval of this project. Not just the



1 patients of a single provider.

2 Q: Did Mr. Levitt reference any type of market --
3 broader market analysis regarding MUSC's
4 project?

5 A: You know, he talked about the fact that he
6 thought that they had met the community need
7 standard because they had done a market
8 analysis. But the only market analysis they
9 did was to determine where patients, who were
10 utilizing radiation therapy services at MUSC,
11 resided. He didn't look at where the existing
12 providers were located. He didn't give any
13 consideration to the approval of the Roper
14 project three miles away from the proposed
15 Nexton site for the Medical University project.
16 And really didn't give any consideration to the
17 trends in utilization that have been going on
18 in the area that I talked about in my direct
19 testimony, where there's been virtually no
20 growth in the number of radiation treatments.

21 Q: In terms of -- you heard some testimony
22 regarding why MUSC's fiscal year 2016
23 utilization number was high. And I believe Mr.
24 Levitt referenced the fact that MUSC had
25 included ports. Do you recall that testimony?



1 A: He talked about port films, yes.

2 Q: Okay.

3 **MR. THOMAS:** VickiLynn, can you cull up Joint
4 Exhibit 1-027?

5 Q: And at the top of the page -- this is a South
6 Carolina Joint Annual Report Portal. I believe
7 it's for MUSC -- or excuse me, it's their JAR.
8 Excuse me. Can you read, Mr. Sullivan, what's
9 at the top of the page there?

10 A: Sure. It says, note: Under, quote, Number of
11 Treatments, unquote, record of the number of
12 patient visits. This is not ports.

13 Q: So, is there a specific direction not to use
14 ports in the JAR to the applicant?

15 A: There is.

16 Q: Let's talk about rounding. This is the last
17 time we'll have to talk about rounding. Mr.
18 Levitt spoke about rounding. He showed many
19 demonstrative slides and regular, you know,
20 slides in evidence. But -- and he mentioned
21 the subjective nature of the State Health Plan.
22 Do you agree with him that rounding is
23 permissible because of the subjective nature of
24 the State Health Plan?

25 A: I do not.



1 Q: Okay. Can you explain why not?

2 A: Sure. I mean first of all -- I mean, I don't
3 disagree that some elements of the State Health
4 Plan require subjective judgements, because
5 they're not clear-cut standards. They're sort
6 of general standards. But as it relates to the
7 80-percent utilization requirement, the two
8 previous year requirement, there's no
9 subjectivity about that. I mean, that's a
10 clear-cut standard. I think Mr. Levitt
11 testified that, you know, he knew what 80
12 percent of MUSC's claim capacity of 24,000
13 treatments was, and that was 19,200. I mean,
14 that's not a subjective number. That's a
15 clear-cut number. So, I don't believe it's
16 subjective at all.

17 Q: What about -- I believe Mr. Levitt brought up
18 this concept of minimal de minimus versus
19 materiality. Do you have an opinion on that?

20 A: You know, I do. You know, I think that it's
21 not de minimus, even though the amount of
22 rounding that was required in this particular
23 instance was relatively small. I mean, three
24 hundredths of a percent. It's not de minimus
25 in terms of its impact on the review of



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1 applications. And the same -- you know, we're
2 talking about Standard 7, but the same could be
3 true under Standard 6 where the service area as
4 a whole has to be at 80 percent. If you
5 rounded, that would allow approval of another
6 project when the area hadn't quite gotten to
7 the minimum level of utilization yet. And in
8 this case, you know, this would result in
9 MUSC's project being found consistent with
10 Standard 7, when I believe that, as I said in
11 my direct testimony before, a minimum is a
12 minimum.

13 Q: Well, what about this concept -- I believe one
14 of the examples they showed was that it could
15 lead to the addition of a bed and then that
16 could lead to an application for 50 beds. What
17 do you think of that example?

18 A: Well, I think two things. One, when you deal
19 with bed need, it's different from looking at
20 a utilization standard, because you can only --
21 you can't approve a fractional bed. So, you
22 have to round when you're doing bed need
23 planning because you either have to round up or
24 round down. And I think -- you know, my
25 experience has been that the Department's



1 always sort of used this third-grade
2 convention, as Mr. Levitt referred to it as, if
3 it's .5 or higher, they round up; if it's under
4 .5, they round down. You know, in the example
5 he gave, there was rounding both on the -- you
6 know, on two sides of the, you know, equation.
7 And you could argue in that case that perhaps
8 DHEC had rounded inappropriately, but, you
9 know, there's nothing wrong with rounding when
10 you're dealing with things that require that
11 the need be determined in whole numbers and
12 integers. And so, you know, I don't think
13 that's necessarily an apples and apples
14 comparison, the situation we have here.

15 Q: Well, did Mr. Levitt ever say that 79.5 was
16 definitely you round up or 79.53 you round up?

17 A: No, he did not. I think he -- I think you
18 asked him a series of questions about that and
19 he said, you know, he thought it was a case-by-
20 case basis. And, you know, and that raises
21 some concerns as well.

22 Q: Yeah. This case-by-case basis, do you agree
23 that that's how the Department should met out
24 Standard 7?

25 A: I don't. I mean, I think, if there's a



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ROA_1202

1 definition of what would be an un-level playing
2 field, it would be that different applicants
3 could get different results, you know, with
4 similar utilization numbers. You know, I agree
5 with Ms. Murdock when she testified that, in
6 her opinion, you shouldn't round up, because it
7 is a minimum standard. And I think that
8 provides a clear -- you know, Mr. Levitt talked
9 about the lack of bright lines in the State
10 Health Plan. I think 80 percent's a bright
11 line. I think if we keep it a bright line,
12 otherwise you have this sort of fuzzy DMZ zone,
13 you know, around the 80-percent standard where,
14 you know, maybe you're consistent, maybe you're
15 not. I don't think that's necessarily good
16 health planning.

17 Q: In terms of -- okay. This was shown in Mr.
18 Levitt's testimony yesterday, Respondent's 39.
19 Do you agree that this slide is accurate?

20 A: I don't.

21 Q: Okay. And particularly what is not accurate?

22 A: They FY 2016, the number. That's the one, you
23 know, obviously that he rounded in this case.

24 Q: Okay. And I guess it showed that fiscal year
25 '17 is definitely below the 80-percent



1 standard, correct?

2 A: That's correct.

3 Q: Okay. Do you have any other opinions about
4 rounding, other than what we've already talked
5 about thus far?

6 A: I don't think so.

7 Q: Okay. Now, Dr. Cawley testified on his Direct
8 that there were some -- that here were these
9 virtual tumor boards that MUSC used, and I
10 believe maybe Dr. Jenrette also referred to
11 virtual tumor boards. Do you have an opinion
12 about the utility of virtual tumor boards?

13 A: Yeah. I mean, I think it's a really good thing
14 from a healthcare access standpoint. You know,
15 the Affordable Care Act encouraged the use of
16 telemedicine. I can't remember who testified
17 about that, but that is, in fact, true. And it
18 allows expertise to be disseminated over a
19 broader area. And, you know, given the changes
20 in technology that have occurred just in the
21 last, you know, 10 or 12 years in terms of, you
22 know, what you can do on an iPhone, what you
23 can do with Skype, what you can do with, you
24 know, all of these other technological things,
25 it takes down a lot of the barriers that used



1 to exist in terms of providers talking to each
2 other, in terms of patients getting access to
3 the best information. And so I think the
4 virtual tumor boards, rather than being a
5 reason why you need to approve the MUSC
6 project, I think it sort of eliminates one
7 barrier. And that is the difficulty in
8 physicians that are not located -- you know,
9 co-located with each other in the same building
10 or same campus, being able to speak to each
11 other with a great amount of ease. And I think
12 it would -- you know, would facilitate the type
13 of referral process that we talked about, where
14 a patient could -- who lived in Dorchester or
15 Berkeley County, could be referred to Trident
16 and the Trident physician could participate in
17 the virtual tumor board and it would be fairly
18 seamless.

19 Q: I believe that Mr. Levitt, he testified -- he
20 was asked a series of questions about
21 withdrawing and refiling MUSC's application,
22 that was not appropriate. Do you recall that
23 testimony?

24 A: I do.

25 Q: Do you agree with this opinion regarding



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ROA_1205

1 whether or not that is a proper thing to do or
2 not?

3 A: I do disagree.

4 Q: Why?

5 A: Well, you know, he said that, well, all we'd do
6 is delay things and we'd end up at the same
7 place. Well, there's no guarantee we would end
8 up at the same place. I mean, first of all,
9 where we wouldn't end up is where we are now,
10 where they didn't meet the standard at the time
11 of the application. And they're not the one
12 who has the burden of proof, so, I mean, that's
13 certainly a big concern that I talked about
14 before. Secondly, in order to have orderly
15 health planning, you need to file applications
16 when your application is actually consistent
17 with the criteria against which it's being
18 evaluated. If, after the fact, their numbers,
19 as they claim, 2017 and 2018, put them in
20 compliance with Standard 7, I think that's an
21 unfair advantage to an applicant that shouldn't
22 be provided. They should re-file their
23 application under the newest data. That data
24 has only become available in the last two
25 weeks. And then they can go through the



1 process and try to demonstrate consistency with
2 all the other criteria.

3 Q: Mr. Levitt also mentioned that this idea that
4 MUSC couldn't be a competing applicant made no
5 sense, because MUSC's application was for an
6 expansion under Standard 7. Do you agree with
7 that opinion?

8 A: I don't.

9 Q: Could you clarify?

10 A: There's nothing in the definition of what
11 competing applicants are that says that, if
12 you're applying for an expansion, you can't
13 have a competing applicant. You know, I can
14 think of a number of -- you know, competing
15 applicant just means that the approval of one
16 would mean that the approval of the second one
17 would exceed the need, you know, in the area
18 for a particular type of service. I could see
19 a situation where there were two applications
20 for services in a similar area. And even
21 though one was applying under Standard 6 and
22 one was applying under Standard 7, the one
23 applying under Standard 6 might have a better
24 argument in terms of why their project should
25 be approved. And those projects could be



1 competing and, you know, for good reason, the
2 Department may not want to approve two projects
3 in close location to each other. And so those
4 could be competing applications.

5 Q: Okay.

6 **MR. THOMAS:** Let's put up Respondent's demonstrative
7 exhibit 34 if we could.

8 Q: Did you have an opportunity to look at this,
9 Mr. Sullivan?

10 A: I did.

11 Q: Okay. Do you have any opinions about this
12 particular demonstrative?

13 A: Well, it's sort of an interesting exercise, but
14 it doesn't really address, you know, the core
15 issue in the State Health Plan, and that is
16 what was the utilization at the time of the CON
17 review for the two most recent years. You
18 know, we're talking about calendar year 2017.
19 The decision in this case was rendered in
20 November of 2017, so there couldn't have been
21 consideration of calendar year 2017 data.
22 Certainly couldn't have been consideration of
23 the 2018 data. We know that 2016 was below 80
24 percent, you know, putting aside the rounding
25 issue. And so those two years didn't work.



1 And he says there were 19 periods in which they
2 were over 80 percent, but they weren't over 80
3 percent at the right point in time, you know,
4 for the review of this application.

5 Q: How about -- let's talk a little bit about
6 capacity. Now, first of all on demonstrative
7 34, that assumes that MUSC's capacity is what?

8 A: 24,000.

9 Q: And do you agree with that capacity?

10 A: For all the reasons I've said on Direct, I
11 don't agree with that.

12 Q: Now, Mr. Levitt indicated yesterday that there
13 was no definition for sufficient volume. Do
14 you have an opinion as to what constitutes
15 sufficient volume for purposes of the capacity
16 standards?

17 A: I do have an opinion, yes.

18 Q: Would you please enlighten us?

19 A: Yeah. You know, while I agree with him that
20 there is no formal definition, I think there
21 has to be some type of rule of reason, you
22 know, that there has to be a material enough
23 amount of utilization of a certain type. For
24 example, with stereotactic radiosurgery. If
25 the theory is that it takes longer, even though



1 the testimony is it doesn't take a whole lot
2 longer, than an IMRT treatment -- it does take
3 a little bit longer. And so while it may not
4 be a certain number of treatments, it may be
5 that you show that the treatments that you do
6 take up a substantial portion of your schedule.
7 You know, if you multiply out the number of
8 minutes per treatment times the number of
9 treatments, that means that 25, 40, 50 percent
10 of your schedule is impacted by the delivery of
11 those types of services. When you only have a
12 handful of cases, such as -- you know, we saw,
13 for example, in some of the data we looked at
14 here for the SBRT utilization where one unit
15 they were only doing 20 and the other one I
16 think was 389. When you do the math on those,
17 as I talked about before, they don't really
18 represent a substantial portion of the overall
19 schedule available to do radiation therapy
20 treatments, so I don't think that they provide
21 a sufficient basis to adjust the standard down
22 to 4500.

23 Q: Okay. I believe there's some testimony from
24 Mr. Levitt about the Varian Clinac 600CD, that
25 they've got an assignment of 4,000 treatments



1 and that's referenced in the State Health Plan
2 I think over 10-years old. Are you aware of
3 any standard in the 2015 Health Plan, under
4 which this application -- the MUSC application
5 was evaluated, that makes an exception for
6 these TBI procedures?

7 A: I don't.

8 Q: Okay. What is your understanding of what MUSC
9 has assigned to the Clinac linac 600CD as a
10 capacity today?

11 A: I believe it's 5,000.

12 Q: Okay.

13 A: So, I mean, they're not adhering to the 4,000
14 that they talked about, I believe it was in the
15 2000 State Health -- 2009 State Health Plan.
16 And, you know, the regulatory scheme changed
17 after that, you know, in the State Health Plan
18 two years later, where the Department adopted
19 a whole new set of standards and then
20 applicants or existing providers, you know,
21 made various petitions to the Department about
22 assigning certain values to their numbers.

23 Q: You heard testimony today -- well, skip that.
24 Excuse me. In terms of the CON application --
25 well, let's talk about Mr. Levitt's position.



1 He said that the only way to change capacity is
2 through a State Health Planning amendment
3 process. Do you have an opinion on that
4 opinion?

5 A: I do.

6 Q: What is it?

7 A: I think that that creates a very arbitrary
8 process in terms of -- particularly in the case
9 of an opponent seeking to challenge an
10 application. I can explain why.

11 Q: Yeah. Why?

12 A: There's no way for someone outside of an
13 organization to know what the proportion of
14 different types of radiation treatments that
15 are being provided are, without having access
16 to discovery. And certainly there is no
17 discovery process during the initial review of
18 an application. If -- it's only through the
19 discovery process in this case that we were
20 able to determine that some of these units did
21 not appear to be providing the level of
22 treatments that would be consistent with the
23 capacity standards that were assigned to them.
24 And, you know, we also saw in this case that
25 Roper petitioned the -- well, you know, they



1 basically filed a letter before they submitted
2 their application, a few months before their
3 application, saying we want you to change our
4 standards. That wasn't part of the State
5 Health Plan review process. The Department
6 ultimately honored that and those are the
7 standards that are now recognized in the State
8 Health Plan.

9 Q: Let's go to R 42, if we could. I'll show you
10 a slide that Mr. Levitt talked about yesterday,
11 testified about. Do you remember Mr. Levitt
12 testifying about this slide, R 42, entitled
13 MUSC Linear Accelerator Utilization by Machine?

14 A: I do.

15 Q: Do you agree with the concept of this slide in
16 terms of the capacity utilization?

17 A: I mean -- certainly, I mean, I'm not
18 challenging the math associated with the slide,
19 but I do have a problem with the presentation
20 of this data.

21 Q: Can you explain that for The Court?

22 A: Sure. You know, the -- it's called the V600
23 here. I've been calling it the 600CD. I think
24 it's the same machine. He's looking at the
25 actual utilization of that machine and then



1 comparing that to the utilization of the other
2 machines. Well, there were ways that MUSC
3 could have addressed the low utilization of
4 that machine.

5 Q: Such as?

6 A: Either to upgrade the machine -- yeah, I think
7 Dr. Jenrette said it was possible that some of
8 the features that would allow them to do more
9 conventional-type treatments could have been
10 purchased. And certainly I think that, you
11 know, their choice to have a machine -- you
12 know, they've criticized Trident for having a
13 machine that they're not fully utilizing -- or
14 not utilizing at all now, yet they're doing
15 essentially the same thing. They have one unit
16 that they're using only a small fraction of the
17 time. And as a consequence, the utilization of
18 the other units is higher. I think what this
19 also shows is that these machines have the
20 ability to handle a lot more volume than what
21 the standards in the State Health Plan are. I
22 think Dr. Jenrette testified that they're
23 running sort of normal business hours, 7:30 to
24 5:00, every day and they were able to
25 accommodate over 5,000 treatments on some of



1 these machines, 6,000 in some years.

2 Q: 7500 in fiscal year '15 on the IX?

3 A: That's true.

4 Q: And so, you know, I think it goes to the fact
5 that -- I believe Mr. Levitt said that at 80
6 percent you really don't have a lot more
7 capacity to serve patients. And I think what
8 this demonstrates is, as a practical matter,
9 that's not the case, you know. I think we had
10 -- we talked about the fact that Trident's
11 operating its two units at about 100 percent
12 utilization, based on the assigned capacity.
13 So, you know, a lot of problems with this
14 analysis. But, you know, I mean, I think if
15 you extended this same analysis to Trident,
16 Trident could say, well, we're not really using
17 the third unit, so we've got 100 percent
18 utilization on our two machines, so maybe we
19 need another one.

20 Q: What about Mr. Levitt's argument concerning the
21 Elekta, which was unused for a period of time,
22 but had capacity of 4500? Do you agree with
23 his conclusions regarding how the Elekta should
24 be treated?

25 A: I don't. You know, he -- I mean, I think the



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1 thrust of his testimony was that, perhaps the
2 Elekta should just be closed and there
3 shouldn't be a third unit at Trident. You
4 know, the -- you know, I won't repeat all the
5 testimony that's already been given in this
6 case by the Trident witnesses, but the Elekta
7 was not a machine that was well integrated into
8 the Varian platform that they had at the
9 hospital. And certainly it didn't make sense
10 to run three machines if you didn't have
11 sufficient volume for three machines, because
12 that just increases your overall fixed cost of
13 operations. If you have to staff three
14 machines, you have greater maintenance costs on
15 three machines. And so when HCA was -- or what
16 Trident was doing was taking the most efficient
17 approach in terms of the operation of its
18 units. He also rolled in some opinions about
19 redundancy and that redundancy was not part of
20 the State Health Plan. And I'd disagree with
21 that. If Trident were to apply to get a third
22 unit just to provide redundant capacity, it
23 would probably not be approved. But the fact
24 that they have three units, and they have one
25 that's going on 17 years old now, buying



1 another unit that will allow them to have two
2 state of the art units and then having an older
3 unit as a backup, doesn't add anything to the
4 overall inventory in the planning area. It
5 gives them the ability for, those times when
6 they do go down when they're doing high volumes
7 on their existing machines, which would be very
8 disruptive to patient care, to be able to serve
9 those patients.

10 Q: Let's talk about that. You know, you heard Mr.
11 Levitt's testimony regarding the fact that --
12 you know, that problems with these linacs don't
13 occur frequently, and then, when they do occur,
14 they're resolved very quickly. Has that been
15 your experience with your clients?

16 A: No.. You know, I can think of at least five
17 cases of clients that I've worked with where
18 their machines were down for several days
19 because of significant problems and inability
20 to get the right part or to get the right
21 technician there. I mean, they were just
22 running into -- and so that put a significant
23 crimp in their ability to provide timely care
24 to patients and resulted in them having to run
25 long hours on existing units they had -- they



1 were operating.

2 Q: And if Trident has -- doing 12,000 treatments
3 and has two units, what would be the
4 implications for Trident if one of those units
5 went down and there was not a third compatible
6 unit for the patient care?

7 A: It would -- they would have two options. One,
8 they'd have to defer treatments until the other
9 unit came back up or they would have to operate
10 late into the evening.

11 Q: Let's put up Respondent's 93. Mr. Levitt
12 referenced this slide yesterday. Did you have
13 an opportunity to review it?

14 A: I did.

15 Q: Do you have any opinions that counter Mr.
16 Levitt's opinion?

17 A: I do. I mean, I think this slide, you know,
18 has some of the same issues. I was just talking
19 about. And that is that, if you take what Mr.
20 Clements said in terms of our ability to do 100
21 patients a day, that we would have a 16,500
22 treatment capacity. I don't necessarily
23 disagree with that. I mean, I think that's how
24 the math works out. But I think, again, the
25 implication of this was that Trident shouldn't



1 have spent 4.065 million dollars in replacing
2 the Elekta machine. You know, again, there
3 was a reason why the Elekta wasn't a good fit
4 for the program. There was a reason why the
5 Elekta -- I mean, why the new machine is
6 needed, given the age of the Clinac machine
7 that they have. And, you know, the ability to
8 replace it at four million dollars is a much
9 cheaper alternative and provides needed
10 capacity for Trident. It's better than
11 spending 10 million dollars on a new center in
12 Nexton.

13 Q: Let's go to Respondent's 71, Mr. Levitt
14 referenced yesterday. When is this slide
15 that's entitled Service Area Population
16 Projections - All Ages and Age 65 Plus. Mr.
17 Sullivan, what does it show that the population
18 is going to do in the overall service area
19 percentage-wise from 2016 to 2021?

20 A: It's going to grow by 8.1 percent.

21 Q: Okay. And do you recall -- I believe you
22 prepared a slide for the demonstrative exhibits
23 for Trident during its case in chief. But do
24 you remember what percentage the population
25 went up from 2010 to 2017 in this same service



1 area?

2 A: It went up by about 15 percent.

3 Q: Okay. But not quite double what is expected to
4 happen from 2016 to 2021?

5 A: That's correct.

6 Q: Okay.

7 **MR. THOMAS:** Put up R 75 please, Respondent's 75.

8 Q: Okay. This is an exhibit Mr. Levitt referenced
9 yesterday entitled MUSC Linac Projected
10 Volumes. Do you recall seeing this slide?

11 A: I do.

12 Q: In terms of the amount of growth, what does Mr.
13 Levitt show is going to occur to total service
14 area treatments from 2016 to 2022?

15 A: Well, he was taking that -- if you take that
16 8.1 percent we were just looking at, I think
17 that works out to be, on a compounded basis,
18 the 1.6 percent annual increase that Mr. Levitt
19 testified that he's using in terms of growing
20 the projected treatments, so that the
21 treatments would grow in concert with the
22 growth and population.

23 Q: Okay. Did the treatments grow in concert with
24 the growth and population from 2010 to 2017 in
25 the service area?



1 A: They did not. The number of treatments was
2 essentially flat, despite the fact that there
3 was a -- you know, I think there was actually
4 even a small -- I mean, very small decline in
5 the number of treatments over that period of
6 time, despite the fact of having a 15 percent
7 increase in population.

8 Q: Okay. Let's go to Petitioner's 6, if we could.
9 And this was ---082. And I'll represent that
10 this is from the 2015 CON application that MUSC
11 submitted for a linear accelerator in the north
12 area. And Mr. Levitt testified that he created
13 this -- at least this portion of the CON
14 document. What was Mr. Levitt's conclusion
15 about the number of treatments there would be
16 in 2018?

17 A: He projected 61,809.

18 Q: Okay. He made that projection about four years
19 ago. Is that a fair statement?

20 A: Yes.

21 Q: Let's go to Respondent's 89, please. Okay.
22 What does Mr. Levitt project, or at least
23 estimate, that the total service area
24 treatments are in the interim for 2018 and this
25 CON application?



1 A: 47,901.

2 Q: Okay. What's the delta between the 2015 and
3 the new projection we see here?

4 A: It's a little less than 14,000 treatments,
5 13,900 roughly.

6 Q: Do you have an overall opinion about kind of
7 that delta?

8 A: Well, that's obviously a pretty big difference.
9 You know, I think the -- you know, I think what
10 we've learned from this service area is that
11 we've entered a different phase. I mean, there
12 was a period of time from the mid sort of 2005,
13 2010 period where the treatments were growing.
14 And that continued a little bit into '11 and
15 '12, but then we began to see the downturn.
16 And so, you know, the notion that population is
17 going to drive more treatments is really an
18 unproven assumption at this point in time,
19 because we just haven't seen, you know, more
20 dramatic population growth result in more
21 treatments for all the reasons that Dr.
22 Williams talked about, you know, during his
23 testimony.

24 Q: Okay.

25 MR. THOMAS: Could we put up Petitioner's 55,



1 please?

2 Q: I'll represent that this is -- and I think it
3 will speak for itself, but it's the December
4 22nd, 2015 DHEC decision. And you recall Mr.
5 Levitt offering testimony about this document
6 yesterday?

7 A: I do.

8 Q: Okay. I believe you said it was the denial
9 letter, which he said DHEC got wrong. First of
10 all, do you agree that DHEC got it wrong then?

11 A: I do not.

12 Q: Okay. Why not?

13 A: Well, I was actually involved in reviewing that
14 application and I think DHEC got it right. And
15 in fact I think the framework that DHEC used in
16 evaluating this application is the appropriate
17 framework that it should have used in
18 evaluating the 2017 MUSC application. And I
19 can explain why.

20 Q: Please do.

21 A: I think Mr. Levitt pointed to the fact that
22 DHEC didn't accept the fact that 5,000 would be
23 a reasonable standard. Well, MUSC didn't
24 provide any objective data in that 2015
25 application to support a 5,000 capacity



1 standard. They didn't provide any objective
2 data in the 2017 application either to support
3 that. And so, you know, I think from that
4 standpoint, you know, DHEC was certainly within
5 its rights to make that determination. You
6 know, on the next page, if we can go there, if
7 you look at Standard 7, we see that DHEC looked
8 at the utilization, what they found to be the
9 two most recent years, which was the JAR data,
10 between -- including 2014. I think there was
11 testimony earlier that this application
12 included 2012 and 2013 data, which was data
13 that was about 19 months earlier than the time
14 that the application was actually filed. And
15 so DHEC basically updated that data to a more
16 recent year and found that the applicant didn't
17 meet the criteria. And same as we have here.
18 If you take the correct data for fiscal year
19 2016 or if you take calendar year 2016 or if
20 you take the rolling 12 months up to the month
21 before the application was filed, the
22 application didn't satisfy the two most recent
23 year standard. So, I think DHEC got it right
24 there as well in denying this application. And
25 then if we go down to the community need



1 assessment, what DHEC did is they didn't just
2 look at utilization at MUSC, they looked at the
3 entire market. They looked at the fact that
4 utilization in the service area as a whole was
5 declining. What they would see applying this
6 same analysis today is that utilization in the
7 service area is stagnant. And so the
8 assumption that there's going to be material
9 growth that's going to avoid any impact on
10 existing providers is simply not born out by a
11 look at the broader market. I think DHEC got
12 it right there and I think they got it right in
13 the -- or they got it wrong in the '17
14 application.

15 Q: Well, and did DHEC make any findings about the
16 broader market in the 2017 decision?

17 A: They did not.

18 Q: Let's go to Joint Trial Exhibit 5-006 if we
19 could. Just in terms -- and let's find this.
20 But before I ask you a question about this
21 Joint Exhibit 5, in terms of the location of
22 the linear accelerator in 2015, did DHEC make
23 a finding about that in the denial letter?

24 A: To be honest, I don't recall.

25 Q: Okay. That's all right. I think we talked



1 about that earlier. In terms of joint -- let
2 me ask you this. Did they make a finding about
3 unnecessary duplication of services in the
4 2015?

5 A: They did. They found that the MUSC project
6 would result in unnecessary duplication.

7 Q: Okay. All right. I'd like you to read
8 Standard 8 into the record, because Mr. Levitt
9 was asked about this yesterday and spoke to it.
10 Mr. Sullivan.

11 A: Okay. The applicant shall project the
12 utilization of the service and document
13 referral sources for patients within the
14 service area, including letters of support from
15 physicians and healthcare facilities indicating
16 a willingness to refer patients to the proposed
17 service.

18 Q: Okay. I want to focus on that phrase, and
19 healthcare facilities indicating a willingness
20 to refer patients to the proposed service.

21 **MR. DAYHUFF:** Your Honor, excuse me. It wouldn't be
22 a Will and Travis event if I didn't have an
23 objection, so let me make one here. So, this
24 is a case on rebuttal. While Mr. Levitt
25 certainly mentioned compliance with that State



1 Health Plan standard as part of the CON
2 application that they filed, he limited it to
3 the CON application. Now, in a rebuttal case
4 we know that it's not about completing your
5 case in chief through rebuttal. This witness
6 had no testimony -- Trident had no testimony in
7 their case in chief about whether or not we met
8 Standard 8 or Standard 9. In a rebuttal case
9 you cannot add new claims, new issues. And
10 that's exactly what they're trying to do here.
11 And I've got a case I'll hand up, just in case
12 we have other items like this, that I think
13 lays out the rules on rebuttal.

14 MR. THOMAS: I hope it's not like that statute that
15 supported me last time.

16 MR. DAYHUFF: I still think we were right on that
17 statute. So, let me just finish. So, you
18 know, just taking a little step back, right,
19 rebuttal cases are also thought of as cases in
20 reply. And the idea of reply, I think
21 everybody understands, even when you're
22 thinking about pleadings, there's a complaint,
23 claims are made; there's an answer, defenses
24 are asserted. That answer, you get to reply if
25 you are the Plaintiff if additional claims are



1 made by the Defendant, i.e. a counterclaim.
2 So, rebuttal works in much the same way. If we
3 look at ---

4 **MR. THOMAS:** Can I just look at this real quick.
5 Because he's going in the wrong direction than
6 I'm going in.

7 **MR. DAYHUFF:** I don't think they can put up a case
8 in Standard 8. So, if he wants to not put up
9 a case that we don't meet Standard 8, that's
10 fine.

11 **THE COURT:** Well, now he's conceding something that
12 you haven't addressed yet, so ...

13 **MR. DAYHUFF:** I'd be shocked, but I would love to --
14 -

15 **MR. THOMAS:** Let me get my question out, then you
16 can ---

17 **MR. DAYHUFF:** Okay.

18 **MR. THOMAS:** --- maybe raise the objection.

19 Q: And you don't answer until we get the okay. My
20 question is, this portion of Standard 8 that
21 says, including letters of support from
22 physicians -- which we've certainly raised in
23 our case in chief, that's not really what I'm
24 talking about -- and healthcare facilities
25 indicating a willingness to refer patients to



1 the proposed service. So, my question is this:
2 In terms of healthcare facilities indicating a
3 willingness to refer patients to the proposed
4 service, what does that mean from a healthcare
5 planning perspective with respect to community
6 need and institutional need?

7 MR. DAYHUFF: Okay.

8 MR. THOMAS: Thank you.

9 THE COURT: You okay with that?

10 MR. DAYHUFF: So far.

11 THE COURT: Okay. Answer the question.

12 A: Sure. I think that -- again, it goes back to
13 some of the notions I was talking about earlier
14 that community need really involves looking at
15 the broader community and not just at one
16 institution's particular marketplace and
17 utilization patterns and so forth. And I think
18 what was absent from MUSC's application was any
19 support from other healthcare facilities saying
20 that they saw a community need for this
21 particular project, that there was a need for
22 additional capacity, generally there's a need
23 for additional capacity in the north area of
24 Charleston. And so I think the -- again, the
25 focus of this application was very narrow. And



1 that is solely on MUSC, its patients, and what
2 would benefit its patients. And I think that
3 that's too narrow a perspective from a
4 community needs standpoint.

5 **MR. DAYHUFF:** Your Honor, just briefly then. I
6 understood that to be related to the quality of
7 our community need documentation or our support
8 letters, and that's what that's relevant to.
9 As long as we're not talking about compliance
10 or not with 8, I'm fine.

11 **THE COURT:** Yeah. I think that's what ---

12 **MR. THOMAS:** Fair enough.

13 **Q:** Do you think that DHEC would ask a question
14 about whether or not you're getting
15 documentation from referral sources from
16 healthcare facilities indicating a willingness
17 to refer patients if they were only concerned
18 about a healthcare facility standing in the
19 silo and serving its own patients?

20 **A:** I would think that that would be contrary. I
21 mean, if all you were concerned about was the
22 individual patients of a particular provider,
23 then I think you would not have a standard that
24 said look at the willingness of other
25 healthcare facilities to refer you.



- 1 MR. THOMAS: Let's put up Respondent's 69, if we
2 could.
- 3 Q: Okay. I think we've seen this a couple of
4 times. Mr. Levitt, do you recall him talking
5 about this yesterday?
- 6 A: I do.
- 7 Q: Now, he -- Mr. Levitt kind of shut down your
8 alternative of the East Cooper location. Do
9 you recall that?
- 10 A: I do.
- 11 Q: Okay. Do you agree with that argument?
- 12 A: I don't. I mean, I still think that East
13 Cooper would be a better location than to put
14 yet a fifth unit, linear accelerator unit in
15 northern Charleston area. But I think I also
16 mentioned in my Direct that West Ashley was
17 another alternative.
- 18 Q: Why would that be a decent alternative?
- 19 A: Well, if you think about -- and, again, Your
20 Honor, you may know the Charleston area very
21 well. But West Ashley, the main road that runs
22 through there is Highway 17, the Savannah
23 Highway. And that particular road is
24 accessible to folks who are coming from the sea
25 islands. That would include Kiawah, Seabrook,



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1 Johns Island, and so forth. It would include
2 folks who were at Beaufort. It would even
3 include people in Colleton, you know, at least
4 a portion of the people in Colleton, who are
5 living along the I17 -- I'm sorry, US 17. And
6 when you add those pieces together, you get
7 about 30 percent of the patient population.
8 So, there are only two units at Bon Secours St.
9 Francis on the West Ashley. It would seem
10 that, again, in the interest of better
11 improving distribution of services, and MUSC is
12 concerned about improving distribution of
13 access to its services, having a unit at West
14 Ashley would avoid the problems that they
15 talked about in making patients travel
16 downtown. It would also provide an alternative
17 to the Roper St. Francis units that are out
18 there.

19 **MR. THOMAS:** Can we go to R 83, Respondent's 83,
20 please?

21 **Q:** Okay. Now, Mr. Levitt showed this slide
22 yesterday. And has got some numbers off to the
23 right there about the service area totals from
24 2010 through 2018 with a little star and the
25 change in an overall percentage. Do you have



1 any opinions about how this slide is presented?
2 A: Well, I do. I mean, first of all the 2007 --
3 the 2018 numbers, we really don't know what the
4 total is in 2018. I think Mr. Levitt testified
5 he just plugged in the Roper Bon Secours number
6 from 2017, so we don't know if they went up or
7 down in that year. But, secondly, if you look
8 at the trend, again, it's pretty clear that
9 there is no long-term growth trend in the
10 numbers. The numbers are bumping around. The
11 number in 2018 that he calculated is about the
12 same as it was in 2011. And if you look at the
13 fact that it went up a little bit in 2011, it
14 went down a little bit for the next couple of
15 years, and then it bumped around for a couple
16 of years, you know, it's more of a random
17 pattern of utilization. And it really doesn't
18 support the notion that there's going to be
19 material growth in the number of treatments
20 going forward.

21 **MR. THOMAS:** Can we look at R 84?

22 **(Respondent MUSC's Exhibit Number 84 was introduced**
23 **into the record at this time.)**

24 Q: In terms of the number of treatments not
25 growing in the service area, does Respondent's



1 84 have anything to do with that?

2 A: Sure. This shows what the number of treatments
3 per patient, what that factor has looked like
4 over time. And we can see the number was about
5 20 back in 2010 and it's dropped to 15.7 by
6 2017. So, that's a decrease of about 18 to 19
7 percent in the number of visits per treatment.
8 And so, as a consequence, for all the reasons
9 that Dr. Williams talked about and some that I
10 mentioned myself in my Direct testimony, this
11 trend, which there's no evidence that there's
12 going to be a reversal of this trend or even a
13 stabilization of this trend in terms of fewer
14 treatments per patient, is going to put a
15 damper on future growth.

16 MR. THOMAS: Let's look at R 85 if we could.

17 (Respondent MUSC's Exhibit Number 85 was introduced
18 into the record at this time.)

19 Q: All right. We saw this kind of bar graph here.
20 And just a quick question. What is the number,
21 at least in 2011, of the number of linear
22 accelerator treatments for MUSC in 2011?

23 A: 20,290.

24 Q: Okay. How about 2012, Mr. Sullivan?

25 A: It was almost exactly the same, 20,288.



1 Q: Okay. And so, in terms of 2018, what's the
2 number of treatments for 2018?

3 A: 20,083.

4 Q: Okay. What is the bar graph telling you?

5 A: That MUSC has really had no growth in volume of
6 treatments. They've had -- again, they've had
7 sort of a random pattern of utilization. I
8 think Mr. Levitt talked about the fact there
9 were some machines down for a period of time
10 that may explain the dip in 2014. But, in all
11 these other years the numbers are basically
12 static, so there's not -- again, there's not a
13 lot of growth in capacity at MUSC.

14 Q: Okay.

15 MR. THOMAS: Go to R 86, if we could.

16 Q: Mr. Sullivan, do you have any opinions on this
17 slide that shows MUSC's historical trend in
18 radiotherapy treatments from 2007 to 2018, an
19 11-year period?

20 A: Sure. You know, I think that -- I'm not sure
21 about the relevance of going all the way back
22 to 2007, because the practice of radiation
23 therapy was much different back in 2007 than it
24 is today, you know, because of some of the
25 changes in technology and changes in the



1 approach to treating different types of cancers
2 with fewer fractions. But, you know, I think
3 that Mr. Levitt was attempting to show, by
4 drawing a line, you know, basically doing a
5 linear regression on these numbers, to say,
6 gosh, you know, we've got a increasing trend in
7 volume at Medical University. When, in fact,
8 if we look at the more recent period of time,
9 starting in 2011 to 2018, I think the only
10 conclusion you could draw is that the volume is
11 static.

12 Q: Okay.

13 MR. THOMAS: Let's go to R 88 -- or R 87. I'm
14 sorry.

15 (Respondent MUSC's Exhibit Number 87 was introduced
16 into the record at this time.)

17 Q: All right. Now this is Trident Medical
18 Center's radiotherapy treatments that Mr.
19 Levitt talked about. And I think the next
20 slide, R 88 just shows 2016, 2017, and 2018.
21 But in terms of looking at this bar graph of
22 what Trident's been doing over the last five
23 years or so, do you have an opinion as to
24 what's going on with their volume?

25 A: Yeah. I mean, they're basically paralleling



1 what's going on in the market as a whole. And
2 that is their volume has been essentially flat.
3 They had a peak in 2015, dropped off in '16,
4 and then bounced back a little bit in '17 and
5 '18. But they're not utilizing a lot more
6 capacity now than they have been historically.
7 So, you know, it's been sort of a zero sum game
8 over the last several years in terms of the
9 total number of treatments that are being
10 divided up by the three major providers.

11 **MR. THOMAS:** Let's look at Respondent's 98. This is
12 the drive time analysis, Drive Time Comparison.
13 Maximize that at all?

14 Q: Can you read that?

15 A: I can.

16 Q: Okay. Here we go. That's better. Mr. Levitt
17 talked a little bit about access and travel
18 time. And I believe this particular -- he
19 relied on this particular exhibit. Do you have
20 any opinions about this exhibit, Mr. Sullivan?

21 A: Sure. You know, as I talked about in my Direct
22 testimony, you know, I think a drive-time
23 analysis that excludes the other providers in
24 the market, you know, has very limited utility
25 in making health planning decisions. There's



1 no consideration given to Trident or Roper's
2 locations. But, you know, some of the drive
3 times on here just look a little questionable.
4 For example, from -- down from North Charleston
5 to downtown, 34 minutes. I mean, I grew up in
6 Charleston. I still have a home there.
7 There's very few parts of North Charleston that
8 take me 34 minutes to get from there to
9 downtown. Parts of North Charleston, the way
10 that MUSC has defined it, include ZIP codes
11 that are all the way down on the neck of the
12 peninsula that couldn't be more than 10 or 12
13 minutes away from MUSC downtown location. So,
14 as far as being any significant improvement in
15 travel times for the North Charleston
16 population, I think this particular chart
17 overstates what the improvements would be.

18 Q: I mean, do you think that the central areas of
19 North Charleston are 21 miles away from
20 downtown?

21 A: I don't. You know, I mean if -- you know, my
22 simple geography, Summerville, which isn't
23 North Charleston, it's in Dorchester County,
24 farther north of North Charleston, is Exit 199.
25 The exit you get off of I-26 in downtown



1 Charleston is 221. So, that's 22 miles from
2 Summerville to the downtown area and it's
3 probably a mile or a mile and a half from that
4 exit to MUSC. So, I don't know what point was
5 picked in this analysis, but I would think that
6 the mileage distance to downtown from North
7 Charleston would be a bit less than 21 miles.

8 Q: Okay. Mr. Levitt made a --

9 MR. THOMAS: Let's go to Respondent's 73, if we
10 could.

11 Q: Mr. Levitt referenced this as the 2016
12 household income distribution graph, I suppose.
13 Mr. Levitt started talking about kind of the
14 eight percent there for Summerville and the ten
15 percent in the blue, so it would be less than
16 \$10,000 per household, and maybe the nine
17 percent of the North Charleston area. And I
18 think he referenced that those were one of the
19 major population areas than the peninsula,
20 which was less of a population area. But in
21 terms of those income distributions and where
22 it's being located, the Nexton site, do you
23 have any opinions about that with respect to
24 Mr. Levitt's testimony?

25 A: Sure. I think he testified that -- sort of two



1 things. One, that, in projecting the mix of
2 payers for this particular project in the
3 financial projections, the assumption was that
4 the payer mix for this project would be the
5 same as all of the radiation therapy services
6 that were being provided by MUSC. So, there
7 was really no specific focus given to serving
8 underserved populations in the financial
9 projections in the application. And I think
10 when you asked about the two and a half percent
11 charity care, I think Mr. Levitt testified
12 about the fact that most radiation therapy
13 patients have insurance. They either have
14 Medicare or Medicaid or some type of commercial
15 plan. And so insurance access to care really
16 isn't a huge issue. So, I don't think that
17 this project is really intended to address a
18 particular medically underserved need in a
19 particular geographic region of the planning
20 area.

21 Q: Mr. Levitt stated that your solution of
22 outsourcing cancer care just doesn't work.. Do
23 you have any opinions about that?

24 A: Well, it doesn't work if the party that could
25 outsource it doesn't refer patients, but it can



1 work. And it happens in many other markets
2 where patients, who were part of a health
3 system, are referred to independent radiation
4 therapy providers. And with a degree of
5 cooperation among the two organizations, you
6 can get the sort of multi-disciplinary,
7 seamless care that, you know, MUSC is talking
8 about that they want to accomplish with their
9 project. You know, radiation therapy is only
10 one piece of the overall treatment of a patient
11 with cancer. I think we heard testimony that
12 included I think some cases chemotherapy and
13 some cases surgery and some cases other types
14 of healthcare interventions. It's not a
15 difficult process for a radiation therapist or
16 a radiation oncologist to insert themselves
17 into that multi-disciplinary team to provide
18 periodic updates on the patient's progress, as
19 we talked about earlier, participate in tumor
20 boards or participate in multi-disciplinary
21 team meetings, even if they do it virtually.
22 So, I just fundamentally disagree with that.

23 Q: There was a little talk about subspecialists in
24 Dr. Jenrette's testimony and I believe in Mr.
25 Levitt's as well regarding this fact they can



1 have this kind of this rotation of cancer
2 radiation oncologists going out to MUSC Nexton
3 and it could be a -- I think Mr. Levitt said a
4 prostate day, a head and neck day, a lung day.
5 Do you have any opinions about that kind of
6 notion of this rotation of radiation
7 oncologists out to Nexton?

8 A: Sure. You could certainly do that. I mean,
9 but I think as Dr. Jenrette noted, these
10 patients are getting treatments every day. So,
11 a prostate patient just isn't going to come on
12 Monday and get their radiation treatment.
13 They're going to come on Monday, Tuesday,
14 Wednesday, Thursday, Friday and the prostate
15 guy is not going to be there. And I think Dr.
16 Jenrette said it didn't really matter if he was
17 there or not. You know, that once you did the
18 treatment plan, that that was the important
19 part. And there's no reason why MUSC couldn't
20 participate in the treatment planning if they
21 wanted with Trident. And then, you know, there
22 could be reports back to MUSC about the
23 progress of the patient.

24 Q: In terms of this idea that I believe Mr. Levitt
25 talked about, you know, deeper, broader, cancer



1 care, it doesn't say at MUSC -- a patient of an
2 MUSC physician, medical oncologist, does that
3 patient lose access to that particular deeper
4 broader cancer care simply because they were
5 referred to Dr. Williams or Dr. Collins or Dr.
6 MacDowell for radiation therapy?

7 A: Certainly not. I mean, again, the radiation
8 therapy is just one part of the patient's
9 overall treatment and a relatively small part
10 of the patient's day. I mean, they come in --
11 you know, in a well-organized system, they come
12 in and within an hour they're in and out of the
13 radiation therapy center. They would still
14 have the opportunity to go see whatever
15 specialist, surgical specialist, medical
16 oncologist, other specialists at MUSC if that
17 was their choice. And it's -- you know,
18 hospitals for decades, hospital-based radiation
19 therapy departments have been providing reports
20 to physicians in terms of the progress of
21 treatment on a linear accelerator.

22 Q: Mr. Levitt brought up -- I think he started
23 talking about the network operating agreement.
24 And Mr. Dayhuff took him through various
25 provisions of the network operating agreement,



1 which I believe, at least for Trident's exhibit
2 -- it may be different on Respondent's, but
3 it's Trident's Exhibit Number 14.

4 **MR. THOMAS:** If you can cull that up. Can we go to
5 page seven, paragraph 4.1 of the operating
6 agreement?

7 **(Petitioner's Exhibit Number 14 was introduced into**
8 **the record at this time.)**

9 Q: Well, first of all, this is the Operating
10 Agreement of MUSC Healthcare Cancer -- Health
11 Cancer Care Network dash (sic) LLC, a Delaware
12 Limited Liability Company, correct?

13 A: Yes.

14 Q: Okay. If we could go to 4.1. I think it says
15 just Business. And could you read Section 4.1
16 into the record?

17 A: Sure. The business to be conducted by the
18 Company shall be to hold, directly or through
19 one or more of the Operating Companies,
20 ownership interests in Centers, to provide
21 services for the entire oncology service line
22 for the Centers and to carry on any and all
23 activities necessary, proper, convenient, or
24 advisable in connection therewith.

25 Q: Okay. Now, I believe it was last week --



1 although a while ago, I thought it was
2 yesterday. But it was last week that Dr.
3 Cawley offered some testimony. I think he was
4 trying to clear up at least some of these
5 issues, that MUSC Health was actually MUSC
6 Strategic Ventures. Do you recall that
7 testimony?

8 A: I do.

9 Q: Okay. Is it more clear to you now in terms of
10 that MUSC Health is not MUHA, it's not the
11 Hospital Authority?

12 A: Yeah. I mean, when I first saw the document,
13 I thought that MUSC Health was MUHA. I thought
14 it was the Medical University Hospital
15 Authority. But as I understood it, MUSC
16 Strategic Ventures is a separate corporation
17 that's been set up in order to participate in
18 joint ventures with other parties.

19 Q: I think Mr. Cawley testified that those -- at
20 least this company -- let's call it the
21 Network, if we could just because that's a
22 mouthful, the MUSC Healthcare Cancer Network,
23 LLC. I'll refer to it the Network. -- that
24 the Network is essentially off balance sheet,
25 right?



1 A: Right. He said that, because -- I think I'm
2 characterizing his testimony correctly.
3 Because Alliance owned 51 percent of the
4 interest in the Network and MUSC -- or
5 Strategic Ventures, if we could just say
6 Strategic Ventures, owned 49 percent, that
7 neither the assets nor the liabilities of the
8 Network were reflected on the financial
9 statements of the Medical University Hospital
10 Authority.

11 Q: Okay. So, is MUHA the owner of the MUSC Cancer
12 Care Network, LLC, the Network?

13 A: It is not.

14 Q: Okay. I'm going to hand you Regulation 61-15,
15 Section 202, B(8)(b). This is the B(8)
16 section, the ownership section, just the
17 regulation. And I'd like you to read into the
18 reg -- I mean, read it into the record (8)(b)
19 if you would.

20 A: Sure. Says name and address of licensee or
21 perspective licensee. It has a parenthetical
22 insertion. Note: The licensee is defined as
23 the legal entity who, or whose governing body,
24 has the ultimate responsible and authority for
25 the conduct of the facility or service; the



1 owner of the -- colon (sic), the owner of the
2 business.

3 Q: Semicolon, right?

4 A: I mean, sorry. Semicolon, you're right. The
5 licensee must be the entity to whom the
6 Certificate of Need is issued.

7 Q: Okay. Is MUHA listed as a licensee in the
8 application?

9 A: It is.

10 Q: Is it the owner of the business?

11 A: It is not.

12 Q: Okay. All right. I'm going to kind of close
13 here.

14 **MR. THOMAS:** One second.

15 Q: In terms of MUHA not being the owner, in your
16 opinion who should have filed the application
17 in this case?

18 A: Well, the owner is Alliance Oncology, because
19 they own 51 percent of the Network. They're
20 also going to be the entity that's going to
21 manage the facility.

22 Q: Okay. So, should Alliance have applied for the
23 CON?

24 A: They should.

25 Q: I want to talk about the last thing that Mr.



1 Levitt, I believe, raised in his Direct.
2 Purposes of the State Health Plan. First, he
3 had an opinion that, you know, this project
4 contained cost. Do you agree with that?

5 A: I do not.

6 Q: Why not?

7 A: The project proposes an approximately 10
8 million dollar expenditure to place a linear
9 accelerator in an area that already has great
10 access to linear accelerator services. And
11 access is going to be improved ---

12 **MR. DAYHUFF:** I'm sorry. That is just on which
13 criteria?

14 **MR. THOMAS:** Just cost Containment.

15 **MR. DAYHUFF:** Cost Containment purpose?

16 **MR. THOMAS:** Under the purpose, yeah.

17 **MR. DAYHUFF:** Okay. So, I would make the objection
18 that they made no cost containment claim in
19 their case in chief, based on the purposes of
20 the CON Act. They made no claims with respect
21 to us not satisfying the purposes of the CON
22 Act. So, this is now the time, apparently, for
23 the objection that I made earlier, which is, in
24 a rebuttal case, in this case that I handed up,
25 reply testimony should be limited to rebuttal



1 matters raised by the defense, rather than to
2 complete the Plaintiff's case in chief. If Mr.
3 Sullivan wanted to make the health planning
4 opinion that we failed to satisfy any of the
5 purposes of the CON Act, he would have needed
6 to make that in his case in chief, not wait
7 until rebuttal: To go a step further, he would
8 have needed to offer this opinion in his
9 deposition, which he did not do. So, for those
10 two reasons; one, he needs to disclose before
11 we get here, and, two, you can't complete your
12 case in chief as part of rebuttal.

13 **MR. THOMAS:** Your Honor, I haven't had a chance to
14 review this. This is a criminal case and, you
15 know, this is an administrative matter, first of
16 all. Secondly, we're not completing our case
17 in chief. We're rebutting what they said. And
18 they said it contains cost. We're saying that
19 -- I'm saying does he have an opinion counter
20 to that. And, you know, I don't think that I'm
21 limited here, under the purposes of the CON
22 Act.

23 **MR. DAYHUFF:** Sure he's on rebuttal if -- they can't
24 wait until a rebuttal case to raise a claim for
25 the first time. Sure, we applied all of the



1 project review criterion, we applied the
2 standards in the State Health Plan, and we
3 applied the purposes of the CON Act as we did
4 our CON application. And certainly Mr. Levitt
5 can testify about that. Mr. Sullivan has got
6 to, if he has that claim, raise it in his case
7 in chief. And he hasn't. Secondly, he
8 hasn't offered it in expert deposition.

9 **MR. THOMAS:** How about I do it this way, Your Honor.

10 I'm going to proffer. If you're not inclined
11 to allow him to testify, I will proffer the
12 testimony, because I think Mr. Dayhuff is
13 wrong. Just like he was wrong about the other
14 statute that he continues to raise and say that
15 we can't bring stuff up that wasn't brought up
16 below. This was certainly brought up below,
17 cost containment, unnecessary duplication, the
18 guide be established as best to serve the
19 public -- meet the public need. And, you know,
20 they brought it up in their case. We're
21 rebutting exactly what they said. And we're
22 doing it with most of the things we've already
23 testified about in our case in chief, about the
24 10 million dollar project cost as opposed to,
25 you know, Trident having an unused linear



1 accelerator, the same type that's actually
2 better than the one they're going to offer.
3 So, everything that I think Mr. Sullivan is
4 going to testify about under each one of these
5 topics is something we brought up in our case
6 in chief.

7 **THE COURT:** All right. If that's so, and some of
8 that is so, I think, what's the relevance of
9 this regulation?

10 **MR. THOMAS:** The relevance of the CON Act?

11 **THE COURT:** No. Specifically you brought my
12 attention to 61-15 Section 202 (8) (b).

13 **MR. THOMAS:** The relevance of that was they were
14 talking about the ownership structure and the
15 management structure after Mr. Summer had
16 elicited testimony from Mr. Cawley, because we
17 weren't sure -- frankly, we were kind of
18 waiting for Mr. Cawley to figure out who owned
19 this, who was managing this entity. And it was
20 cleared up by Mr. Cawley to some degree. Mr.
21 Levitt testified about it. And, frankly, the
22 relevance of the ownership is a motion that
23 we're going to offer post trial in about an
24 hour, I would say, regarding this illegal
25 construct that they've dealt with here. So,



1 that's the relevance of that.

2 **MR. DAYHUFF:** Let me add to my motion and move to
3 strike all of this, because this is also not
4 appropriate rebuttal testimony. The idea that
5 they don't know -- that's their favorite thing
6 to say is, until we hear from Pat Cawley and
7 everybody else, we just didn't know. We had
8 these operating agreements produced in
9 discovery ---

10 **MR. THOMAS:** With the wrong names of the parties.
11 I mean, MUSC Health ---

12 **MR. DAYHUFF:** They weren't the wrong names. They
13 were names that were changed.

14 **MR. THOMAS:** It was the wrong name.

15 **MR. DAYHUFF:** So, I'm just adding this to the list.
16 Certainly not raised below. But I'm actually
17 not raising that with respect to this, because
18 they would have had to do discovery. My
19 objection here is, if they want to raise that,
20 that's a case in chief claim. It's not a
21 rebuttal claim. If they wanted to raise that,
22 this witness should have read the operating
23 agreement and offered that testimony in his
24 deposition. So, my objection to cost
25 containment in this line of argument are the



1 same.

2 **THE COURT:** All right. Cost containment, is it cost
3 containment -- I'm asking a question to the
4 lawyers here. Is it cost containment, but --
5 because when this legal structure allows them
6 to put a debt or a potential debt off the
7 books? Isn't that what the testimony was
8 earlier about this structure and the
9 relationship between Alliance and MUSC?

10 **MR. THOMAS:** That's correct.

11 **MR. DAYHUFF:** There was testimony to that effect.

12 **MR. THOMAS:** Correct. Which is fundamentally
13 illegal.

14 **THE COURT:** Well, I'm not sure it's illegal, but it
15 is a question of ---

16 **MR. DAYHUFF:** He didn't raise that claim either.

17 **THE COURT:** Well, there was testimony about this
18 being off the books. It doesn't show up on
19 MUSC's balance sheet.

20 **MR. DAYHUFF:** The hospital's balance sheet.

21 **THE COURT:** The hospital's balance sheet.

22 **MR. THOMAS:** The Authority's balance sheet.

23 **MR. DAYHUFF:** Which is MUHA.

24 **THE COURT:** Yeah.

25 **MR. THOMAS:** Well, MUHA, Your Honor, is not just a



1 hospital. It is a vast network of things that
2 are out in the community as well, so it's not
3 just ---

4 **THE COURT:** Well, I don't think we can characterize
5 it as an evil empire, so ---

6 **MR. DAYHUFF:** I agree.

7 **MR. THOMAS:** It's not the Death Star.

8 **THE COURT:** Let's look at this. I think there's
9 grounds to have rebuttal testimony to the
10 extent that it reinforces the position that
11 they've taken. I don't think we need to get it
12 -- I agree with you, Mr. Dayhuff. I don't
13 think we need to get into something brand new,
14 which may be the subject of post-trial motion.
15 I don't think we lay that foundation on
16 rebuttal testimony.

17 **MR. DAYHUFF:** I agree. Thank you.

18 **MR. THOMAS:** I'm fine with Mr. Sullivan speaking to
19 each one of these purposes that they brought up
20 in terms of what we have already -- what we've
21 testified to in our case in chief through our
22 witnesses.

23 **MR. DAYHUFF:** No testimony in the case in chief that
24 we did not satisfy in any of those purposes.
25 It wasn't even mentioned. That's called



1 completing your case in chief in rebuttal.
2 And, again, in addition, didn't get those
3 opinions through his expert deposition.

4 **MR. THOMAS:** He's offered many opinions that are
5 related directly to these things. And, you
6 know, just because it's not said, okay, it's
7 cost containment. We talked about unnecessary
8 duplication. We talked about access, which is
9 guide the establishment of services that best
10 meet the public need. We talked about whether
11 or not we're a high quality program. We talked
12 about -- their own witness admitted that we
13 were today. Ensuring that high quality
14 services are provided in healthcare facilities
15 in this state. We've already testified to all
16 of that.

17 **MR. DAYHUFF:** So, we're talking right now about the
18 cost containment purpose of this CON Act.
19 There was no testimony about cost containment,
20 i.e. you didn't satisfy it, i.e. it's too
21 expensive, it doesn't contain cost in their
22 case in chief. That's why it's problematic.
23 And it wasn't in the expert deposition.

24 **THE COURT:** I understand that. There was testimony,
25 there was in the case in chief questions about



1 financial feasibility. And insofar as the
2 rebuttal testimony relates to that, I'm going
3 to allow it. But, again, we're not -- we can't
4 go into something new. You know that.

5 **MR. THOMAS:** Yeah. Right.

6 **THE COURT:** All right.

7 **MR. THOMAS:** I'm just -- we're refuting what is
8 their own expert has said on their statement.
9 I know. I'll even say it for you. Mr.
10 Dayhuff's going to say, it wasn't in their case
11 in chief. But, in fact, we talked about these
12 concepts, these very same things. Mr. Sullivan
13 said this was an unnecessary duplication of
14 services, so Mr. Dayhuff's flat wrong when he
15 said that we didn't talk about that. You know,
16 Mr. Sullivan said there's no access issue.
17 That is guide the establishment that best meets
18 the public need. That's the access prong of
19 the CON Act. He knows that because he's been
20 doing this almost as long as I have. All
21 right. And the high-quality services, we
22 talked about that.

23 **MR. DAYHUFF:** We're talking about cost containment
24 right now. And certainly they talked about
25 access in terms of the project review



1 criterion. And you didn't hear me try to stop
2 Mr. Sullivan from talking about how access is
3 minimally improved. We crossed on that. I'm
4 suggesting to you, though, that cost
5 containment has not been brought in their case
6 in chief, so they can't do it now.

7 **THE COURT:** Well, again ---

8 **MR. THOMAS:** I'm going to, you know, agree to
9 disagree.

10 **THE COURT:** I'm going to -- to the extent that it
11 deals with financial feasibility, which he has
12 brought up, I will allow it. But, again, if
13 this is just cost containment, I think the barn
14 door has long opened and closed on that.

15 **MR. THOMAS:** Maybe I'll -- I know I'm just going to
16 draw an objection, but --

17 **Q:** Mr. Sullivan, do you have an opinion about a
18 project that is going to be built in the cost
19 of 10 million dollars with an institution that
20 has on its books over 600 million dollars in
21 loss -- not losses, but in the negative net
22 assets and two billion dollars in liabilities?

23 **MR. DAYHUFF:** He's right. This will draw an
24 objection. So, that is also a claim that they
25 didn't raise in their case in chief. If he



1 wanted to make that claim, make it in your case
2 in chief. Now, he would have had a problem
3 trying to make it in his case in chief, because
4 he never raised it at DHEC and he never raised
5 it in his deposition with me. And, in fact,
6 told me in his deposition, I'm not bringing
7 that claim. So, there's three reasons why that
8 line of questioning is inappropriate. But it's
9 also inappropriate for the same reason cost
10 containment is, which is, a rebuttal case is
11 not to complete a case in chief. The barn door
12 is so far open on that one.

13 **MR. THOMAS:** I'll move on. I'm not -- I'm going to
14 proffer this witness to give me an opinion on
15 cost containment. We'll hash it out in the
16 order. That's what I'd like to do.

17 **Q:** So, Mr. Sullivan, do you have an opinion ---

18 **THE COURT:** So, I have sustained his objection to
19 the extent that I've explained.

20 **MR. THOMAS:** Right.

21 **THE COURT:** He is now making a proffer for the
22 record.

23 **MR. DAYHUFF:** Understood.

24 **Q:** Please give me your opinion with respect to the
25 opinion that Mr. Levitt offered regarding cost



1 containment in this case.

2 **A:** My opinion is that cost containment is not
3 served by spending 10 million dollars on a
4 facility that's not needed. This facility will
5 not improve access materially to radiation
6 therapy services and it simply will exacerbate
7 the available capacity that's already existing,
8 as well as the approved capacity in this area.

9 **Q:** Did you offer that very opinion in terms of
10 accessibility in your case -- in our case in
11 chief?

12 **A:** I did.

13 **Q:** Okay.

14 **MR. THOMAS:** Now, outside of the proffer, Your
15 Honor. Outside of the proffer, so I'm ending
16 the proffer now.

17 **Q:** With respect to unnecessary duplication of
18 services, do you have an opinion about whether
19 or not this project satisfies that purpose of
20 the CON?

21 **A:** I do.

22 **Q:** What is it?

23 **A:** I believe this project is unnecessary
24 duplication. It is -- first of all, the
25 applicant did not prove a need for an



1 additional unit under the standards in the
2 State Health Plan, and therefore didn't qualify
3 for an expansion. Secondly, the applicant did
4 not take into consideration the availability of
5 capacity and quality services at Trident. And,
6 three, as we sit here today where we have an
7 approved application at Roper St. Francis
8 Berkeley, they haven't given any effect to the
9 fact that there's going to be a brand new
10 linear accelerator service three miles away
11 from their proposed site. And so all of those
12 things result in this project being an
13 unnecessary duplication of existing and
14 approved resources.

15 Q: Okay. In terms of the radiation therapy
16 services that are being provided at Trident, is
17 there anything that MUSC is doing at MUSC
18 Nexton that better meets the public need that
19 Trident's already doing in its location seven
20 miles away?

21 A: I have not heard of any services as it relates
22 to radiation therapy services that would be
23 provided in Nexton that Trident does not
24 already provide.

25 Q: Okay. And to your knowledge, will any surgical



1 oncology services be offered at the MUSC Nexton
2 site? Is there an ASC there?

3 A: There is not. There will be no surgery
4 performed at that site.

5 Q: And, lastly, in terms of quality, is there
6 anything in your mind that indicates that the
7 quality at MUSC's radiation therapy center at
8 Nexton is going to be any better than Trident's
9 seven miles away?

10 A: No. I mean, first of all, we don't know what
11 the quality's going to be in Nexton, because
12 it's not operating yet. I'm not challenging
13 that they'll offer quality services. But
14 there's certainly no indication that it's going
15 to -- as a freestanding center, not part of a
16 large downtown medical center -- that it's
17 going to offer any type of quality that
18 couldn't already be obtained at Trident.

19 Q: Answer any questions that Mr. Dayhuff may have.

20 MR. DAYHUFF: Your Honor, I'm happy to dive in. Or
21 if you need a break, that's fine too.

22 THE COURT: Let's take a five-minute break here --
23 well, five-minute breaks always go to ten.
24 Let's do that before we start back. Unless
25 you're going to end in five minutes.



1. MR. DAYHUFF: Probably not.

2. THE COURT: Let's take a short break then for
3. everybody.

4. (Off the Record)

5. THE COURT: We're back on the record in case number
6. 18-07-0100. Mr. Dayhuff.

7. MR. DAYHUFF: Yes, Your Honor. And just for the
8. record, this is the quintessential drawing the
9. short straw, having to cross-examine an expert
10. in a rebuttal case. It's the very last thing,
11. without a deposition or anything. So, I
12. thought about one of those preemptive motions
13. where I ask Mr. Sullivan to treat me nicely,
14. but I won't make that, because I know he will.

15. MR. SULLIVAN - CROSS-EXAMINATION BY MR. DAYHUFF:

16. Q: All right. I'm going to kind of take these
17. things and start with where you left off and
18. kind of go back through.

19. A: Sure..

20. Q: So, you offered the opinion that Trident's care
21. was good, quality care. You also offered the
22. opinion, did you not, that MUSC's cancer care
23. is deeper and broader than Trident's cancer
24. care?

25. A: I did.



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ROA_1262

- 1 Q: All right.
- 2 A: In general, not necessarily in Nexton.
- 3 Q: All right. Now, MUHA is the licensee in this
- 4 project, right?
- 5 A: That's what the application says.
- 6 Q: All right. And you looked into the agreements
- 7 -- or agreement related to how this operation
- 8 is going to be run. I've just got one question
- 9 on that. Do you have any question as to
- 10 whether the MUSC Hollings Cancer Center
- 11 protocols will be utilized in the Nexton
- 12 facility?
- 13 A: I do not.
- 14 Q: All right. Do you have any question about
- 15 whether MUSC Hollings Cancer will supervise the
- 16 clinical care that's provided there?
- 17 A: According to the agreement, that's their role.
- 18 Q: You offered the opinion that, from the
- 19 perspective of, I think, quality, if MUSC were
- 20 to outsource patients that came to MUSC for
- 21 cancer care, outsource those patients to
- 22 Trident for linear accelerator services, there
- 23 would be no difference in quality; is that
- 24 correct?
- 25 A: I mean, none that I know of.



1 Q: I see. Well, if that happened, MUSC would not
2 have control over the QA/QI process, QA/QI of
3 the linacs at Trident, would they?

4 A: They would not.

5 Q: They would have no control over the rad oncs at
6 Trident from any kind of supervisory authority
7 perspective?

8 A: They would not.

9 Q: They wouldn't control the equipment at Trident
10 or the types of equipment that Trident uses?

11 A: They would not.

12 Q: And they would have a different EMR?

13 A: They do.

14 Q: All right. So, Dr. Jenrette also testified
15 about outsourcing and how that would affect
16 healthcare. Dr. Jenrette testified that it
17 would be better for folks that come to MUSC for
18 cancer care to keep them within one integrated
19 system; is that right?

20 A: Yeah. I understand that's his opinion. Yes.

21 Q: And how long has he been practicing cancer
22 care?

23 A: Forty years.

24 MR. DAYHUFF: Let's look at 98, Mr. Bupp.

25 Q: All right. There was some discussion over



1 access and whether access has improved or not.
2 I just have a couple of questions. If we were
3 to take your health planning suggestion and put
4 a new linac in Mt. Pleasant, that would not
5 improve geographic access at all for the
6 majority of folks in what we've been describing
7 as the north area, if they're choosing MUSC for
8 cancer care..

9 A: It could improve access for some of those
10 patients, but it wouldn't improve it to the
11 same extent as the Nexton site.

12 Q: Right. Perhaps for some folks in the southern
13 portion of the north area.

14 A: Correct. That live in proximity to 526.

15 Q: All right. And how is access improved at all,
16 geographically speaking, when we take your
17 suggestion of putting a linac in the exact
18 geographic spot where we already have a linac?

19 A: Well, the notion is that you would be more
20 efficient by operating two linacs in one
21 location, as opposed to having individual
22 operations in two locations.

23 Q: Okay. But by placing another linac in Mt.
24 Pleasant at the same location, no changing
25 geographic access at all.



1 A: Well, there would. I mean, if the unit in Mt.
2 Pleasant is highly utilized, that would free up
3 additional capacity in Mt. Pleasant to serve
4 patients from North Charleston as well as from
5 the East Cooper area.

6 Q: All right. And what's the Mt. Pleasant linac's
7 utilization? Do you know?

8 A: As I recall from that earlier slide, it was
9 close to a hundred percent.

10 Q: That's right. If you carve out the Clinac
11 linac.

12 A: Right. I mean, just that unit by itself, Mr.
13 Levitt's calculation was somewhere close to a
14 hundred percent.

15 Q: All right. Let's look at 86.

16 A: Okay.

17 Q: Please. So, I heard your testimony on this
18 slide. So, the 2018 number, is that our
19 calendar year, 2018 number?

20 A: It is.

21 Q: 20,083?

22 A: It is.

23 Q: So that 20,083, we are near our 11-year peak of
24 treatments.

25 A: You are.



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ROA_1266

- 1 Q: Let's look at 83. I just have one question on
2 this. So, Trident Medical Center is showing,
3 with Mr. Levitt's calculation, an annualized
4 number, I think.
- 5 A: Right.
- 6 Q: For 2018. What did Mr. Clements say was our
7 actual 2018 volume?
- 8 A: I think he said it was going to be a little
9 over 12,000.
- 10 Q: So, it's gone up?
- 11 A: It had gone up a little bit, yes.
- 12 Q: All right. You mentioned letters -- or, I
13 guess, letters from referral sources or
14 potential referral sources or the lack thereof
15 in our application.
- 16 A: From healthcare facilities.
- 17 Q: All right. Do we not have a letter from
18 Tideland Health, the CEO, Bruce Bailey, and do
19 we not have a letter from Kershaw, the CEO
20 there, Terry Gunn?
- 21 A: You do, but neither letter says that they would
22 refer radiation therapy patients to the
23 project.
- 24 Q: All right. Is it your understanding that
25 Tideland and MUSC have affiliated in the past



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ROA_1267

1 and have affiliations now?

2 A: Yeah. I believe there's a branch of Hollings
3 Cancer Center at Tidelands now up in Waccamaw,
4 I guess.

5 Q: Doesn't Tidelands have a pretty strong referral
6 relationship with MUSC in all areas of care?

7 A: They do.

8 Q: All right. You talked about the 2015 CON
9 decision where we were denied in the 2017
10 course. You mentioned that there was no
11 finding about the broader market in DHEC's 2017
12 decision granting our CON, right?

13 A: Right. Not the same type of analysis that was
14 present in the 2015 decision.

15 Q: Right. The 2015 decision, they took a hard
16 look at the service area to see what the
17 service area utilization was.

18 A: They did.

19 Q: Now, when they did that -- when they didn't do
20 that in 2017, the reason they didn't do that,
21 I would think, is Standard 7 doesn't have an
22 element whereby DHEC is instructed to consider
23 the service area utilization, right? Isn't
24 that true?

25 A: There's nothing in Standard 7 that says that.



1 But that certainly is not a reason not to
2 consider that.

3 Q: The absence of a adverse impact standard within
4 7 for expansion versus it existing in Standard
5 6 for new, that's a meaningful health plan --
6 health planning distinction between those
7 different types of ways to get approved, right?

8 A: I disagree.

9 Q: All right. So, you don't see the absence of an
10 adverse impact standard in 7 as meaningful from
11 a health planning perspective?

12 A: It's meaningful in terms of meeting the State
13 Health Plan requirements, but I don't think
14 that it obviates the need for the Department to
15 consider community need in a broader context
16 than just the utilization of a single provider.

17 Q: All right. I think you mentioned that Mr.
18 Levitt didn't -- just said there's a toggle
19 switch. If you meet 7 and the utilization
20 Standard 7, that toggles into meeting community
21 need, something along those lines.

22 A: In essence. I mean, that seems to be what the
23 crux of his analysis was.

24 Q: Well, right after he discussed the relationship
25 between Standard 7 and community need, he went



1 forward and talked about the service area,
2 didn't he?

3 A: MUSC's service area.

4 Q: Right. He went on and talked about the
5 population and the population growth.

6 A: He did.

7 Q: And then he went to a projection of the
8 treatments that we would serve in Nexton and
9 also looked at what was going to happen in the
10 market. Aren't all of those elements of
11 community need?

12 A: They are part of the elements of community
13 need. What was absent was no consideration of
14 the utilization of existing providers, no
15 consideration of the geographic locations of
16 existing providers, which are, in my view, key
17 elements of community need also.

18 Q: Because he's doing health planning for the 30
19 percent of our patients who come from the north
20 area who are choosing MUSC, that's why he
21 didn't analyze, with any depth, Trident's
22 capacity and the fact that there's no
23 requirement to do that in the State Health
24 Plan.

25 A: Right.



1 Q: Right.

2 A: But there are two independent standards. The
3 fact that you meet the State Health Plan
4 doesn't mean you get a pass on community need.

5 Q: Right. And this also ties to adverse impact,
6 right? There's no -- not only no consideration
7 of other's capacity and utilization. David
8 didn't analyze in the CON application adverse
9 impact to Trident.

10 A: He did not.

11 Q: All right. And he didn't do that because
12 there's no adverse impact element in 7. There
13 -- adverse impact is not a most important
14 project review criterion, right?

15 A: Right.

16 Q: Because the need that's most important for an
17 expansion is the need that the institution
18 shows to serve its own patients.

19 A: I think that's the first element of
20 demonstrating need, but it's not the end.
21 That's where the analysis and the application
22 and Mr. Levitt stopped. It did not consider
23 whether or not it made sense within the broader
24 community context.

25 Q: All right. And Mr. Levitt also testified that,



1 when you have a project that is based on
2 decanting or redirecting your own patients,
3 there is no material adverse impact. Do you
4 recall that?

5 A: Yeah. Under the assumption that you're only
6 going to serve your own patients, which I don't
7 accept.

8 Q: Let's look at 89.

9 **(Respondent MUSC's Exhibit Number 89 was introduced**
10 **into the record at this time.)**

11 Q: So, this I believe -- well, let me just ask you
12 this. The volume represented on this exhibit,
13 3,786, that's what? That's treatments?

14 A: It is.

15 Q: All right. You believe that volume to be
16 conservative, right?

17 A: Yeah. I think that MUSC will try to take all
18 of the patients it can take out of that area.

19 Q: Let's look at 71, please. I think 71 is
20 population and I think the point here was take
21 a look at the service area total. The service
22 area total is growing by 8.1 percent. You
23 would agree that that total population growth
24 is pretty robust population growth when you
25 consider this area as compared to other areas



1 in the state.

2 A: Yeah, compared to other areas of the state.

3 Q: Right. And I understand -- I think your point
4 was, perhaps it's not growing quite as fast as
5 it was growing, what, five, ten year ago?

6 A: Over the seven-year period, from 2010 to 2017.

7 Q: All right. Folks who are over 65, 65 plus,
8 those are high users of cancer care services?

9 A: They are.

10 Q: And that growth is extraordinary, isn't it?

11 A: Not really, I mean, I do this work in a lot of
12 different markets and this is pretty typical of
13 what's going on.

14 Q: Twenty five percent looks high to me. Is that
15 growth increase or projected increase a large
16 one, compared to other areas of the state?

17 A: Yeah. It's faster than other parts of the
18 state.

19 Q: All right. So, continuing on this march
20 backwards, you talked about Trident's third
21 linac and you did some comparison, I think,
22 between Trident's third linac and our Clinac
23 linac, the very old unit. And, again, I think
24 you mentioned that the third linac was a great
25 thing for Trident to have, because, if they



1 have a linac go down for an extended period of
2 time, there's no disruption of the treatments
3 and the care.

4 A: True.

5 Q: Fair? Mr. Clements testified about how often
6 they had a linac go down for an extended period
7 of time. And he said it's never happened since
8 he's been there, which would be, what, 2013 to
9 now?

10 A: Yes.

11 Q: And Trident -- so, our Clinac linac, we don't
12 use it very much. We use it only for TBI and
13 I think in 2018 we had something like 75
14 treatments.

15 A: I think that's right.

16 Q: And that's different than Trident not using a
17 linac at all, isn't it?

18 A: I think they're comparable. I mean, they're
19 either not using it at all or they're using it
20 for very limited purposes.

21 Q: All right. Well, and I think you testified
22 that we should be using our Clinac linac for
23 more than we do. Did you not hear Dr.
24 Jenrette's testimony that that Clinac linac is
25 good for TBI and really not much else?



1 A: I heard that testimony.

2 Q: And I think you offered some answers regarding
3 the ability to upgrade that thing, multi-leaf
4 collimator and something else. Did you hear
5 Dr. Jenrette say today, when asked about those
6 elements, it would shock me if that stuff was
7 available for this Clinac linac?

8 A: No. Mr. Clements actually checked with Varian
9 and they said that it was available. You could
10 do port films. You could get a multi-leaf
11 collimator for that machine. You did have the
12 ability to upgrade that machine.

13 Q: Who knows more about the Clinac linac, Dr.
14 Jenrette or Mr. Clements?

15 A: Varian.

16 Q: That wasn't an option. Between the two guys,
17 who knows more about that Clinac linac?

18 A: Well, I'm sure that Dr. Jenrette does.

19 Q: All right. So changing capacities. I think
20 you offered the opinion that just being able to
21 change linac capacities through the State
22 Health Plan amendment process would be
23 arbitrary.

24 A: I did say that.

25 Q: All right. And I think part of the reason you



1 offered that opinion was, it's impossible,
2 difficult or impossible, to figure out what the
3 capacities that have been assigned to various
4 linacs to providers are. Is that ---

5 A: Not that capacities that were assigned, but
6 whether the capacities reflected reality,
7 whether the actual utilization squared up with
8 the assigned capacity.

9 Q: All right. And with respect to the idea of
10 those specialized scans -- I guess, we're
11 talking -- you altered our -- or proposed to
12 altering our capacities based on the percentage
13 of SBRT?

14 A: Yes.

15 Q: Is that right? And the State Health Plan does
16 not define what sufficient volume is, right?

17 A: Does not.

18 Q: So, you want to apply a rule of reason to that
19 standard, right?

20 A: Right. You know, my view, you need to show
21 that it substantially impacts your ability to
22 schedule other types of patients on the
23 machine.

24 Q: Bear with me. So, you opine it's appropriate
25 for the ALC I suppose, on your recommendation,



1 to increase our total linac capacity from the
2 24,000 that has been assigned to it in the
3 State Health Plan to 26.5 at the time of your
4 deposition and now, 27; is that right?

5 A: Right. Or even if you don't want to go as far
6 as increasing the unitization with the Clinac
7 linac, the -- certainly increasing the two
8 machines to do low volumes of SBRT would be
9 appropriate, because we have objective evidence
10 that they're not doing high volumes of those
11 machines procedures.

12 Q: And the math on that, is that back to the 26.5,
13 if we were not to change ---

14 A: That would just take you to 25.

15 Q: Twenty five. All right. So, it's either 26.5
16 if we go with your deposition, 25 if we go with
17 what you just said, or perhaps 27 if we want to
18 also change the Clinac linac. And those are
19 kind of the options, I guess.

20 A: They are.

21 Q: All right. You pledged to me you wouldn't
22 increase our capacity, and I don't think you
23 did. You offered me another alternative, which
24 is fine. But you did propose, hey, let's
25 increase Trident's too. We looked at their



1 SBRT. It was too low, in your opinion, and you
2 proposed to increase its capacity from what,
3 16.5? Is that their capacity now?

4 A: It is.

5 Q: And what would we increase their capacity to?

6 A: You'd add 2500 to that.

7 Q: Okay.

8 A: So, take it up to 17,000 -- I'm sorry, 19,000.

9 Q: And you stand by that opinion that increasing
10 these capacities for Trident, for us, makes
11 sense, even though we've heard testimony and
12 seen Health Plan -- State Health Plans that
13 show some of these assigned capacities go back
14 years and they're assigned for very special
15 reasons and special uses?

16 A: Yeah. They were assigned years ago and the
17 delivery of these services today is much
18 different. I mean, I think the object --
19 again, the objective evidence is, if you can do
20 more than the capacities that are assigned in
21 the State Health Plan. Trident's doing more
22 than that. MUSC is doing more than that.

23 Q: You stand by that increase, despite the State
24 Health Plan language that says, when you get a
25 capacity, you're going to keep it for the



1 future.

2 A: I'm not sure I agree with the interpretation
3 that Mr. Levitt imposed on that standard. It
4 just says that the standard that you apply for
5 it will be assigned to you. That doesn't mean
6 it can't be challenged at some point or it
7 can't be changed at some point, based on actual
8 data.

9 Q: Well, I certainly agree with you with respect
10 to the State Health Planning process and going
11 through DHEC. You stand by this increase,
12 despite the fact that, when Roper tried to do
13 it outside of the State Health Planning
14 process, you described it as manipulation.

15 A: Well, I thought Roper was manipulating, because
16 I didn't see the objective data to support what
17 they did.

18 Q: Oh, so it wasn't that they were doing it within
19 a CON case, it's what -- they just didn't
20 support it.

21 A: That was my feeling.

22 Q: All right. I understand. We saw Todd Gallati
23 seek a capacity change through the State Health
24 Planning process for the Elekta.

25 A: He did.



1 Q: And he based that on -- was it SBRT?

2 A: On the expectation they were going to a high
3 percentage of SRS and SBRT.

4 Q: Right. But he gave no demonstration, he gave
5 no numbers of what he was going to do.

6 A: He didn't. You could probably guess that I
7 think that the State Health Plan should be
8 changed.

9 Q: I'm gathering you don't like the capacities.

10 A: I don't.

11 Q: I hear you. Well, that's something that maybe
12 we take up through the State Health Planning
13 process.

14 A: I'm all for that.

15 Q: So, let's look at DX 28 for a second. All
16 right. You recognize this, right? That's our
17 FY15, FY16, corrected, right?

18 A: Yes.

19 Q: So, let's assume that MUSC gets to keep its
20 State Health Plan assigned total capacity of
21 24,000, okay?

22 A: Okay.

23 Q: If that's the case, 80 percent for us is what
24 number?

25 A: One thousand -- I'm sorry, 19,200.



1 Q: And that's 80.0 percent, right? That's exact,
2 right?

3 A: Yeah.

4 Q: Okay. So, we have, in FY16, 19,192 treatments,
5 eight treatments less than exactly 80 percent;
6 is that right?

7 A: That's true.

8 Q: And if we were to divide eight, our treatments,
9 by our total capacity, 24,000, what number
10 would we get? If you need a calculator, I ---

11 A: .03 percent.

12 Q: Is it .0003?

13 A: It's .03 percent. But if you want to make it
14 a decimal, then it's .0003.

15 Q: .0003, if we just do that math, does that mean
16 those eight treatments constitute three ten
17 thousands of our 24k capacity?

18 A: Yes.

19 Q: All right. And those eight treatments cause us
20 to miss 80.00 percent by, what you said, .03
21 percent or three hundredths of a percent?

22 A: Correct.

23 Q: Is that right? And I think we discussed, from
24 a linac provider's perspective, the difference
25 between 19,192 and 19,200, it's not material.



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ROA_1281

1 A: It's not -- yeah, in absolute terms, no.

2 Q: Not for cost, not for reimbursement, not for
3 anything, fair?

4 A: It's not.

5 Q: The State Health Plan is a health planning
6 tool?

7 A: It's more than that. I mean, I think it's a
8 health planning tool and it also sets out some
9 objective standards that applicants have to
10 meet.

11 Q: All right. But kind of the general idea of the
12 State Health Plan is, here are tools,
13 calculations, need calculations, utilization
14 that you use in health planning.

15 A: Sure.

16 Q: Okay. And we've been through this. Rounding.
17 There's rounding in the need calculations in
18 the State Health Plan.

19 A: There are.

20 Q: There are rounding in the utilization tallies.

21 A: Yes.

22 Q: Rounding in the capacity calculations for
23 linac.

24 A: Again, there shouldn't be, but what's published
25 in the Plan is rounded.



1 Q: Right. And the State Health Plan is not
2 recording this health planning data to the ten
3 thousandths decimal place, right?

4 A: It's not now.

5 Q: Or not even the hundredths decimal place.

6 A: It's not.

7 Q: And the State Health Plan does this
8 consistently, rounds consistently, right?

9 A: I think we talked about this before, I mean,
10 there's consequential and inconsequential
11 rounding.

12 Q: Oh, yes, I recall. So, if The Court takes your
13 health planning recommendation here and does
14 not round 79.97, the effect would be we would
15 apply a single element of the State Health
16 Plan, the 80 percent threshold, to the
17 hundredths place; is that right?

18 A: Yes.

19 Q: Apply a single element of the State Health Plan
20 with exacting mathematical precision, unlike
21 all those other calculations in the State
22 Health Plan.

23 A: Well, I don't think it's unlike all the other
24 calculations. Any one that has a utilization
25 standard I would say applies -- should be



1 applied in exactly the same way.

2 Q: Yes. In your opinion, any threshold would be
3 applied with that mathematical exactness that
4 is inconsistent with all those other
5 calculations and figures in the State Health
6 Plan.

7 A: I disagree it's inconsistent with it. It's
8 just there's no reason to have that level of
9 precision in calculating the other numbers.

10 Q: So, I think it's your opinion that DHEC could
11 consider calendar years '17 and '18, or could
12 consider the past fiscal years or past calendar
13 years for somebody applying for an expansion
14 under 2015, Standard 7.

15 A: Yeah. Those would be the typical approaches
16 one would take. I mean, I think one could
17 argue that you could pick another 12-month
18 period prior to the time you filed the
19 application, you know, potentially.

20 Q: And it's your opinion, I think, that it's not
21 proper here and now in a de novo proceeding to
22 consider CY '17 and '18.

23 A: It's not for purposes of determining ---

24 Q: Standard 7.

25 A: Standard 7.



1 Q: And the remedy then is for us to re-file,
2 withdraw and re-file.

3 A: Yes.

4 Q: And if we do that, I understood you to say it's
5 possible that, when we go back to the staff
6 level, David had opined that there won't be a
7 competing application scenario, because we're
8 an expansion and the focus there is on the
9 individual provider. And I think your
10 testimony was, well, you don't know. DHEC
11 could consider a new applicant under 6 and 7
12 together and find those competing.

13 A: They could.

14 Q: All right. Well, they could. They could also
15 not, right?

16 A: True.

17 Q: And in fact, what did they do in this very
18 case? When we had Roper coming in new, MUSC
19 coming in as an expansion, did they consider
20 those competing?

21 A: Ultimately they did not.

22 Q: No. And would it be likely that they would
23 follow the same path again, if we had to re-
24 file?

25 A: I have no idea.



1 Q: Who knows? Maybe, maybe not.

2 A: Maybe through this process they will have a
3 different approach.

4 Q: Perhaps. In any event though, we go back if
5 the remedy that The Court decides is that we
6 can't get approved. In your experience --
7 let's assume we re-file as soon as we can.
8 Let's assume that Trident challenges us. I
9 know that may not be a safe assumption. And
10 let's assume that then there's a contested case
11 process -- that DHEC approves, based on
12 calendar years '17 and '18 and there's a
13 contested case process that follows. How long
14 do you think we would -- it would take us to
15 get to where we are right now, approximately?

16 A: Probably a year and a half.

17 Q: Year and a half, all right. So, those patients
18 in the north area, who are choosing MUSC for
19 cancer care or whose referring physicians are
20 choosing MUSC for cancer care, have to wait a
21 year and a half more to get the opportunity to
22 get approved geographic access that MUSC Nexton
23 would provide, if we are forced to re-file?

24 A: There would -- that's correct. There would be
25 no center at Nexton.



1 Q: And you believe that's an appropriate result
2 from the perspective of health planning?

3 A: I do.

4 Q: Mr. Levitt offered the opinion that you could
5 round 79.97 to 80 for purposes of satisfying
6 the Plan. And he offered that opinion as not
7 a standard, any particular standard that had to
8 be chosen about the amount of rounding, it was
9 a facts and circumstances test. Do you recall
10 that?

11 A: I do.

12 Q: And he also offered the opinion that you could
13 consider calendar year '17 and '18, because
14 it's the most recent data we have and going in
15 this big circle isn't a good thing from a
16 health planning perspective. Do you recall
17 that?

18 A: I do.

19 Q: He also offered the health planning opinion
20 that we ought to consider or take into
21 consideration, that MUSC has been at 80 percent
22 utilization or above for 19 24-month periods
23 over the past few years, that includes, do you
24 recall, some periods after we filed the CON?

25 A: Yes.



1 Q: That includes some periods during the pendency
2 of this very case, right?

3 A: There were some, yes.

4 Q: And it includes some that are relatively past,
5 distant, right?

6 A: Right.

7 Q: You don't consider those 19 periods to be
8 meaningful at all with respect to satisfying
9 the 80 percent standard in 7?

10 A: I don't. I also don't think 80 percent is when
11 you're full. 80 percent is the minimum
12 utilization you have to demonstrate in order to
13 be able to expand. And as I think we talked
14 about, perhaps in my deposition or -- it all
15 blurs together now.

16 Q: Doesn't it?

17 A: The -- you know, you want to approve additional
18 capacity before you get to the point where
19 you're full. So, MUSC is not full today. They
20 have capacity to serve additional patients.
21 So, I don't see that there's a tremendous
22 hardship with them having to wait.

23 Q: Right. I mean, and part of that opinion is
24 based on your opinion that our Clinac linac
25 could be doing a lot more than it's doing,



1 right?

2 A: Not just that, but that your existing ---

3 Q: Part of it, a part of your opinion.

4 A: It's part of it, but the existing units are
5 handling the existing utilization within normal
6 business hours.

7 Q: And the State Health Plan set that 80 point --
8 80 percent threshold, right, as a planning
9 threshold for providers to consider expanding
10 to avoid getting too full and having capacity
11 constraints that inconvenience physicians,
12 patients, and everybody.

13 A: Sure.

14 Q: Isn't that the idea?

15 A: That's the idea.

16 Q: All right. Okay. I heard you say today that
17 Mr. Gallati, his testimony about adverse impact
18 raised legitimate concerns, right?

19 A: Yes.

20 Q: I also heard you say there's potential adverse
21 impact, right?

22 A: There is.

23 Q: So, you're using those phrases instead of
24 adverse impact because you didn't calculate,
25 didn't do any analysis at all with respect to



1 lost volume, and you didn't turn that lost
2 volume into lost revenue.

3 A: I did not.

4 Q: You started your Direct with your opinion, I
5 think, that it's not in your experience for
6 DHEC to change the list of criteria in the
7 deemed complete letter, right?

8 A: That's my personal experience.

9 Q: You haven't tried in many years.

10 A: Not in the last three anyway.

11 Q: All right. You heard Ms. Murdock testify in
12 this case.

13 A: I did.

14 Q: And she said, if a provider submitted a
15 request, they'd consider it. Do you have any
16 reason to doubt her?

17 A: I don't. I'm just talking about my experience
18 with the outcome of that evaluation
19 historically. You know, I have not submitted
20 a request to Ms. Murdock personally.

21 Q: All right. Do you have any reason to believe
22 she wouldn't consider a request submitted by an
23 effected person or an applicant to modify the
24 list she chose in her deemed complete letter?

25 MR. THOMAS: Objection. Calls for Mr. Sullivan to



1 speculate as to what the DHEC director will do.
2 And she's already been put up and down, so.

3 **MR. DAYHUFF:** I'll withdraw the question. Beg The
4 Court's indulgence.

5 **Q:** One more question. Do you know -- if MUSC gets
6 community hospital in the Nexton area, I guess
7 that's Berkeley County, do you know whether
8 they'll provide cancer surgical services at
9 that location?

10 **A:** I don't know for a fact. I mean, they have
11 operating rooms in the facility, so I assume
12 they'll perform surgical services. I didn't
13 recall anything in the application specifically
14 discussing that.

15 **MR. DAYHUFF:** Nothing else. Thank you.

16 **MR. THOMAS:** Just a couple, Your Honor.

17 **MR. SULLIVAN - REDIRECT EXAMINATION BY MR. THOMAS:**

18 **Q:** Let's see if we can do this without going to
19 the exhibits. Mr. Sullivan, Respondent's 86
20 was mentioned. And I'll describe it. It's
21 like the 2007 to 2018 cancer treatment
22 experience of MUSC. In terms of this 11-year
23 peak that Mr. Dayhuff referenced ---

24 **MR. DAYHUFF:** Near peak.

25 **MR. THOMAS:** What's that?



1 MR. DAYHUFF: Near peak.

2 MR. THOMAS: Oh, near peak. Thank you for
3 qualifying that.

4 Q: Do you have an opinion as to the relevance of
5 the 11-year period with respect to the near
6 peak?

7 A: I mean, I don't think the 11-year period is
8 particularly meaningful, because, you know, the
9 practice of radiation therapy has been
10 transformed really over the last four years in
11 particular, I mean, that I'm aware of it where
12 changes to breast treatment, radiation therapy
13 changes to prostate treatment. Some of those
14 things have really just come down pretty
15 recently. So, the more -- in health planning
16 you're always trying to pick a relevant period
17 of time, you know, when you look at trends and
18 you think the trends are consistent over that
19 period of time. I think that period is too
20 long and doesn't reflect the current practice
21 of radiation treatment.

22 Q: When -- you heard today with Dr. Jenrette. And
23 this goes to the outsourcing question you were
24 asked by Mr. Dayhuff kind of in the forefront
25 of the his Cross on you. You heard about the



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1 scenario I got that an MD Anderson cancer
2 patient from South Carolina that goes out to
3 Anderson for the cancer work, comes back to
4 MUSC and gets what kind of care at MUSC; good,
5 great, excellent?

6 A: I mean, his opinion was they got excellent
7 care.

8 Q: Okay. Does MD Anderson have control over the
9 patient who goes to MUSC for radiation therapy?

10 A: They do not.

11 Q: Do they have control over the QA and QI of
12 MUSC?

13 A: They do not..

14 Q: Do they go in there and make sure the equipment
15 is calibrated correctly?

16 A: No.

17 Q: Mr. Dayhuff asked you questions about your
18 belief that Roper was unable to justify its
19 capacity for the 2017 CON applications. Do you
20 recall that question?

21 A: I do.

22 Q: Were you able to review objective data that
23 Roper provided in the CON application with
24 respect to its IMRT on its units?

25 A: No. They provided very general information.



- 1 Q: Okay. And in this case as well -- well, Mr.
2 Levitt claimed that they were only doing 20 to
3 25 percent of IMRT at Roper, right?
- 4 A: I think Roper actually claimed that.
- 5 Q: Okay.
- 6 A: And he commented on that.
- 7 Q: Okay. What did he say about that?
- 8 A: He said he thought that was insufficient.
- 9 Q: Okay. Did -- in this application process --
10 during the CON review, did MUSC ever provide
11 data showing what the SBRT utilization was per
12 unit, linac unit?
- 13 A: No. We never saw that until, I believe,
14 November or December of 2018.
- 15 Q: Okay. Do you have a calculator handy there?
- 16 A: I can use my phone.
- 17 Q: Okay. Pull out your phone for me. And I think
18 Mr. Dayhuff asked you the difference in
19 treatments between 80 percent and 79.97
20 percent, correct?
- 21 A: Right.
- 22 Q: And I think we know, because it's on the
23 record, that at 80 percent for a system -- or
24 program that has capacity of 24,000 is 19,200;
25 is that right?



- 1 A: That's right.
- 2 Q: Okay. And they're at 79.97 percent. We know
- 3 that to be 19,192 treatments, correct?
- 4 A: Right.
- 5 Q: Could you do the number of treatments for 79.44
- 6 percent?
- 7 A: Okay.
- 8 Q: Let me know what that number is.
- 9 A: 19,066.
- 10 Q: Okay. So, the difference there between 19,192,
- 11 what they would like to round up, 79.97, and
- 12 79.44, which I guess is not a number that could
- 13 be rounded up, is roughly 26 treatments, right?
- 14 A: I think it's 126 treatments.
- 15 Q: Okay, 126 treatments. My bad. It's late. 126
- 16 treatments. That's three to four prostate
- 17 cancer patients, correct?
- 18 A: Yes.
- 19 Q: Okay. So, under Mr. Levitt's theory, that's
- 20 kind of de minimus, isn't it?
- 21 A: It's -- I mean, again --
- 22 **MR. DAYHUFF:** Mr. Levitt's theory was a facts and
- 23 circumstances test. It wasn't a particular
- 24 threshold. I recall him saying, I don't have
- 25 a number. Rounding may make sense, based on



1 the facts and circumstances in the case.

2 MR. THOMAS: I didn't hear an objection, so I will
3 continue with the questions.

4 Q: So, Mr. Sullivan, 19,192 versus 19,065; is that
5 material?

6 A: I mean, again, you know, just from the stepping
7 back and looking at a large program, that's not
8 a large deviation in volume.

9 Q: But theoretically under -- if you allow 79.97
10 and you go down to 79.44, which maybe is not a
11 number you can round, there's not a big
12 difference there, correct?

13 A: There's not.

14 Q: So, where do we draw the line? Do you know?

15 A: I think we draw it at 80 percent.

16 Q: Flat?

17 A: Flat.

18 Q: And what did Mr. Levitt said, 19,200 was
19 exactly what?

20 A: Eighty percent.

21 Q: Okay. In your opinion, should -- and this goes
22 to Mr. Dayhuff's question regarding, you know,
23 this idea that they've got to re-file -- or
24 withdraw and re-file. But in your opinion,
25 should MUSC get a pass for presenting incorrect



1 data to the Department and understated
2 capacity?

3 A: I don't believe they should.

4 MR. THOMAS: That's all the questions I have.

5 THE COURT: All right.

6 MR. THOMAS: At this time I would ask that Mr.
7 Sullivan be released.

8 THE COURT: Okay. Mr. Sullivan.

9 MR. SULLIVAN: Thank you, sir.

10 THE COURT: Ms. Biggers, we missed you this morning.
11 Thanks for returning.

12 MS. BIGGERS: Thank you, Your Honor.

13 THE COURT: Mr. Summer, we missed you as well.
14 Anything further from the parties?

15 MR. THOMAS: Yes, Your Honor. I will let Mr. Summer
16 take this over. We do have a matter.

17 POST-TRIAL MOTION BY MR. SUMMER:

18 MR. SUMMER: Your Honor, we do need to get one post-
19 rial motion on the record. Beg The Court's
20 indulgence to do that.

21 THE COURT: All right.

22 MR. SUMMER: Understanding that we're not doing
23 closings and understand that we are preserving
24 various motions and issues raised, like the 80-
25 percent issue, that motion, we do have to get



1 a motion on the record regarding matters that
2 came up during the course of MUSC's case and
3 why we believe that Trident is entitled to
4 judgement as a matter of law. We've already
5 heard a lot of discussion, so I'm going to try
6 to go through this quickly, Your Honor.

7 The Operating Agreement of MUSC Health
8 Cancer Care Network was not before the
9 Department. And I've got sympathy for the
10 Department in this regard in terms of receiving
11 an application from the Authority, but not
12 knowing anything about Alliance. I heard Ms.
13 Murdock testify that she didn't know anything
14 about Alliance. So, from her perspective,
15 she's reviewing an application from MUSC, the
16 Authority. But what we learned through the
17 course of discovery, again, these documents
18 were produced as confidential, but the
19 Operating Agreement is a joint venture and we
20 now know that MUSC Health is referred to in
21 that document -- and that's Trident's Number
22 14.

23 (Petitioner's Exhibit Number 14 was introduced into
24 the record.)

25 MR. SUMMER: MUSC Health is referred to in that



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1 document as a 501(c)(3) corporation. It was
2 confusing to us, because MUSC Health had been
3 used as a d/b/a. In Dr. Cawley's deposition he
4 had said, you know, when we say MUSC Health, we
5 mean everything, we mean everybody, we mean the
6 Authority. Well, his Direct Examination spent
7 a great deal of time -- if y'all remember, they
8 literally went through with him and clarified
9 that MUSC Health in this operating agreement is
10 actually what is known today as MUSC Strategic
11 Ventures. And it was incorporated as a not-
12 for-profit 501(c)(3) and it's not the
13 Authority. So, that much got cleared up by Dr.
14 Cawley. If we look at that document, it's a
15 joint venture. And he referred to it as a
16 joint venture with a for-profit entity. He was
17 very definitive about that and said it a couple
18 of times.

19 The purpose of the Network -- and I'm
20 trying to use single nouns for what we're
21 dealing with, single-word nouns. We've got a
22 University, we have an Authority. And we'll
23 get to a minute why those are separate and
24 distinct legal entities. For purposes of what
25 we're talking about here, the Network is a for-



1 profit joint venture formed in Delaware. Why
2 in the world a South Carolina school is forming
3 companies in Delaware, I don't know, but it's
4 a Delaware LLC. And its business to be
5 conducted by this company shall be to hold,
6 directly or through one or more operating
7 companies, ownership interests in centers --
8 centers is defined in that document as
9 radiation therapy centers -- to provide
10 services for the entire oncology service line
11 for the centers and carry on any and all
12 activities necessary, proper, convenient, or
13 advisable in connection therewith. Their job
14 is to own an operate radiation therapy centers,
15 like the proposed project that's before The
16 Court. That's not what they told DHEC. And
17 not until we got this confidential document did
18 we start to understand what was going on.

19 You'll remember that I Crossed Dr. Cawley,
20 because I was trying to figure out, okay, who's
21 on first, what's on second, I don't know who's
22 on third. Who really runs this company? If
23 you go to Article X, 10.2 Board of Managers,
24 you'll remember that I took Dr. Cawley through
25 the fact that Alliance controls this company.



1 And Alliance has three board members that are
2 on the Board of Managers. And MUSC gets to
3 appoint two. But, again, those MUSC members
4 are coming from what we now know as Strategic
5 Ventures.

6 Also important, Your Honor, is the exhibit
7 to that document. Again, we're in Trident's
8 Exhibit 14, which is the Operating Agreement.
9 It's owned 51 percent by Alliance, a for-profit
10 company. MUSC has 49 percent. So, MUSC put
11 up \$49,000 of public funds, Alliance puts up
12 \$51,000 of private funds and they capitalize
13 and create a for-profit company. And that's
14 without refutation. And so, that is the entity
15 that is going to own and operate. And how do
16 we know that? Because Dr. Cawley testified
17 it's going to be off his balance sheet, it's
18 going to be owned and operated by and through
19 Alliance in this joint venture. Why do we know
20 that? Because he said every bit of equipment
21 -- page 93 of his trial transcript. Every bit
22 of equipment that's going to be in this project
23 is going to be owned through Alliance.

24 In a prior life I used to teach
25 composition to college students. And it was



1 very frustrating to me that, in order to write
2 an essay, you really need to know how to write
3 an English sentence. And I used to make
4 college freshmen diagram sentences so that we
5 can learn a building-block process. It's very
6 -- and I'm just that way, I'm visual, I got to
7 see it. It's important for The Court to look
8 at the enabling legislation that we have for
9 this entity. And I'm going to pass this
10 around, just so that everybody can refer to it.
11 This is the enabling legislation for the
12 Medical University.

13 Now, the Medical University's an
14 interesting animal. It came into the fold --
15 it had been a private medical college. It came
16 into the fold -- came into the state in the
17 early 19th century or early 18 -- excuse me,
18 early 20th century. And this enabling
19 legislation has been amended from time to time.
20 And it's section 59-123-10 of the South
21 Carolina Code. Up until the year 2000 there
22 was a board of trustees and a university and
23 that's all that existed. Beginning in 2000
24 with Act number 264, the legislature created a
25 dichotomy. And it's laid out in this law.



1 I can understand -- and I'm not sitting
2 here today to say that what has gone on has
3 been with mal-intent or nefarious. I do
4 believe, when you have a single board that is
5 charged by the legislature to wear one hat on
6 one vote and one hat on another, that it's
7 going to be confusing for even the best of
8 counsel, much less the lay people who are
9 sitting on that board. But this is the
10 construct created by the legislature. And if
11 we look specifically -- look at 59-123-60, that
12 is the section that talks about the board and
13 what its powers are. And this is the board of
14 trustees for the University only. And they
15 have three enumerated powers. They can make
16 bylaws and regulations for their operations,
17 they can confer degrees for what it is that
18 they do and they teach, and they can make
19 contracts that hold property and real estate.
20 But that's their enabling legislation. That's
21 it. That's all that exists. They have no
22 authority to create other entities, not-for-
23 profit or otherwise.

24 If we continue to read in the statute and
25 we go over to Section (E), you'll see an



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ROA_1303

1 interesting creation. And that is the creation
2 of the Authority. And what it allows the Board
3 to do is to basically constitute itself for
4 purposes of governing hospitals, clinics, and
5 other healthcare related facilities, all of
6 which in the Act are called the hospital. So,
7 any time the word hospital is used in the Act,
8 it means any facility in which care is given.
9 And it's interesting to know that at the same
10 time that this governing body is created, all
11 of the assets were placed into the Authority.
12 And what they're saying herein, whenever the
13 Board function in its capacity as the governing
14 body of the hospital, which is what we're here
15 today for, creating that linear accelerator is
16 a healthcare facility -- we know that because
17 it's defined in 61-15 of the South Carolina
18 Code of Regulations, that a linear accelerator,
19 radiation therapy center, is a healthcare
20 facility under state law. Whenever the Board
21 functions in its capacity as the governing body
22 of the hospital, the Board of Trustees is
23 constituted and designated as the Medical
24 University Hospital Authority, an agency of the
25 State of South Carolina. That's interesting.



1 Not a political subdivision, but an agency of
2 the state itself. The Board, as the governing
3 body of the Authority, has the powers granted
4 the Board of Trustees of the Medical University
5 of South Carolina under this chapter and the
6 following. And Your Honor can see that it goes
7 on and on with different authorities expanded,
8 very broad authorities.

9 But for purposes of why we're here today,
10 if we look at (E)(13), it may -- the Board may
11 establish such not-for-profit corporations as
12 the Board considers necessary to assist the
13 Authority in carrying out its functions;
14 provided, that any entity created pursuant to
15 this subsection is considered to be an entity
16 of the Authority and subject to all laws and
17 regulations applicable to the Authority under
18 this section. Then it goes on and says, the
19 formation of for-profit corporations by the
20 Authority is strictly prohibited. But I want
21 to go back to that prior sentence. They have
22 the ability to create Strategic Ventures. They
23 can create a 501(c)(3). But, Your Honor, that
24 entity, Strategic Ventures, must comply with
25 all the laws that would be applicable to the



1 Authority as a governmental entity. That's an
2 incredible mandate. And I think it's
3 important.

4 So, if we go back and we look, when we
5 look at the law as it was amended by Act 264 in
6 2000, it creates two coterminous entities; the
7 Hospital Authority on the one side, the
8 University on the other. The Authority has
9 clearly seen fit to create MUSC's Strategic
10 Ventures. But there's a mandate from the
11 legislature that whatever you create has to be
12 treated like it's a public entity. It has to
13 be treated like it's the Authority. So, now,
14 why is that important? It's important because
15 of Article X of the South Carolina
16 constitution. And every governmental entity
17 that's out there providing care knows this.
18 Neither the state nor any of its political
19 subdivisions shall become a joint owner of or
20 stockholder in any company, association, or
21 corporation. It's an absolute prohibition.
22 And when the courts, modern courts, have been
23 asked to look at this, I think probably the
24 most instructive case is going to be -- for our
25 purposes is going to be Nichols. Because



1 Nichols involved, Nichols actually involved an
2 authority. And what was going on in Nichols is
3 that there was a development authority. And
4 they basically would like to have had -- they'd
5 like to have a little interest, a little coin
6 in the intellectual property that might be
7 being developed. And what the court said in
8 very short shrift is the following: The
9 constitution clearly prohibits public agencies.
10 And what is the Authority, Your Honor? It is
11 an agency of the State of South Carolina.
12 That's what the statute says. In this case it
13 goes, such as the Authority. In here it's
14 talking about the Research Authority, from
15 engaging in joint ownership with private
16 parties. Can't do it.

17 Now, I don't know if there was a strategy
18 here in trying to utilize a not-for-profit, but
19 our Supreme Court had another occasion to look
20 at indirect ownership. And that's the O'Brien
21 versus ORBIT case. And that was in 2008. And
22 I think the most important takeaway there is
23 you had the municipality attempting to create
24 a trust. Okay, we'll create this trust and
25 we'll let the trust go out in the stock market



1 and buy equities. And I think, you know, The
2 Court is basically saying no. You got to
3 unwind it, you got to send the money back to
4 where it came from. You can't do indirectly
5 what you can't do directly. But I think the
6 ORBIT case -- and, again, when you look at
7 ORBIT and you also look at the mandate that is
8 in the enabling legislation for the Authority,
9 that anything that the Authority creates has to
10 be treated as though it were a public entity
11 and treated with -- and affected by the same
12 laws. You basically come down with this
13 notion. And this is what the Order of The
14 Court said: Because the obvious purpose of
15 ORBIT is to invest in equity securities, this
16 trust, is to invest in equity securities and
17 attempt to circumvent the constitutional
18 prohibition on investing in equity securities,
19 it had an illegal purpose. And therefore The
20 Court said you got to unwind it.

21 And so, Your Honor, we have -- we've
22 prepared a motion, which lays out all of these
23 legal arguments. And I'm certain that opposing
24 counsel's going to want to respond to that.
25 I'm just trying to preserve this for the



1 record. But we believe that Trident is
2 entitled to a judgement as a matter of law.
3 And that's because, as a matter of law, the
4 application, as submitted, constitutes an
5 illegal joint venture and must be denied. So,
6 from our perspective, there's just no way that
7 this entity, the Network, can use public funds
8 an own and operate this venture and not violate
9 Article X of the South Carolina Constitution.
10 And because of that, we don't see how that
11 application can be approved.

12 In DHEC's defense, none of this
13 information was made available to DHEC while
14 this application was being reviewed. This
15 information was produced last fall during the
16 course of discovery and through the testimony
17 that we've now gotten from Dr. Cawley in his
18 case about exactly who each of these legal
19 entities are.

20 But Strategic Ventures, remember Dr.
21 Cawley's own testimony is, well, we've created
22 that to do what we couldn't do. We created
23 that to invest with for-profit entities.
24 That's what it's there for. And I don't think
25 there was anything nefarious in this, but it's



1 not legal. And because it's not legal, we
2 don't believe this Court can approve it.

3 And I think last, Your Honor, just to --
4 the reason we believe we've got to preserve
5 this argument is under the Travelscape case,
6 the Supreme Court has now said that these
7 arguments have to be presented in ALC case in
8 order for the Court of Appeals or Supreme Court
9 to consider them above. And so, before the
10 close of evidence in this case, we wanted to
11 get this motion on the record, so that we could
12 clearly preserve this issue for appeal. Thank
13 you, Your Honor.

14 **THE COURT:** All right. Before we move anywhere,
15 I've got a question. In this motion have you
16 addressed the authority of this Court to
17 entertain this motion?

18 **MR. SUMMER:** I have, Your Honor.

19 **THE COURT:** Okay. Mr. Westbrook, Mr. Dayhuff, I
20 cannot and will not, do not expect you to
21 respond to this motion today. I expect -- I
22 would appreciate if you, likewise, would take
23 -- what's a fair period of time?

24 **MR. WESTBROOK:** Your Honor, you know, I've obviously
25 heard Mr. Summer's argument, but I haven't read



1 his brief. Could we -- I'm not sure what a
2 fair amount of time is right now to respond.
3 But I would think something of this magnitude
4 I would -- well, let me ask you this. We have
5 some other housekeeping things that we have to
6 do in this. For example, establish a time for
7 proposed orders and probably some other things
8 related to exhibits as well. Are we going to
9 -- we had talked about holding some time for
10 tomorrow. Is that still are we still going to
11 meet in the morning?

12 **THE COURT:** We can.

13 **MR. WESTBROOK:** Well, we don't have to. I'm just
14 asking. It seems to me we're going to need to
15 meet at some point to discuss that. And I
16 would like to have at least until whenever that
17 is to give you my request for how long before
18 I -- we can get you a response to this.

19 **MR. SUMMER:** And we understand they need time and we
20 don't have any objection to that.

21 **THE COURT:** Okay. Well, let's -- we'll adjourn for
22 today and reconvene at 10:00 o'clock in the
23 morning. Is that okay? We'll reconvene at
24 10:00 o'clock in the morning and discuss the
25 housekeeping chores that we have, which will



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ROA_1311

1 include the court reporter's time to transcribe
2 this hearing.

3 MR. WESTBROOK: That would, you know, certainly be
4 ---

5 THE COURT: If that would be acceptable to the
6 parties.

7 MR. WESTBROOK: Yeah. That's be great.

8 MR. SUMMER: That's fine, Your Honor.

9 THE COURT: So, we'll adjourn until 10:00 o'clock in
10 the morning.

11 (There being nothing further, the hearing concluded
12 at 4:17 p.m. on Thursday, January 24th, 2019.)

13 (An off-the-record scheduling conference was held on
14 Friday, January 25th, 2019 at 10:00 a.m.)
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STATE OF SOUTH CAROLINA
ADMINISTRATIVE LAW COURT
Docket No. 18-ALJ-07-0100-CC

Trident Medical Center, LLC, d/b/a)
Trident Medical Center,)
)
Petitioner,)
)
v.)
)
South Carolina Department of)
Health and Environmental Control)
and Medical University Hospital)
Authority, d/b/a MUSC Radiation)
Therapy Center-Berkeley County,)
)
Respondents.)
-----)

POST TRIAL MOTION

Thursday, January 24, 2019
3:55 p.m. - 4:17 p.m.

The Post Trial Motion before the Honorable H.W. Funderburk, Jr. was taken at the Edgar A. Brown Building, 1205 Pendleton Street, Suite 224, Columbia, South Carolina, on the 24th day of January, 2019 before Nadine A. Garrett, Court Reporter and Notary Public in and for the State of South Carolina.



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 Attorney for the Respondent MUSC

INDEX

POST TRIAL MOTION:

PAGE

MR. SUMMER.	3
Certificate	18

EXHIBITS

(Exhibits were marked and admitted prior to the hearing and introduced as follows:)

Petitioner's Exhibit Number 14	4
(Operating Agreement of MUSC Health Cancer Care Network, LLC)	

(All original exhibits were retained by the Court.)

STIPULATIONS

It is stipulated and agreed that this hearing is being taken pursuant to the rules of the Administrative Law Judge Division and the South Carolina Rules of Civil Procedure.



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ROA_1314

1 POST-TRIAL MOTION:

2 **MR. SUMMER:** Your Honor, we do need to get one post-
3 rial motion on the record. Beg The Court's
4 indulgence to do that.

5 **THE COURT:** All right.

6 **MR. SUMMER:** Understanding that we're not doing
7 closings and understand that we are preserving
8 various motions and issues raised, like the 80-
9 percent issue, that motion, we do have to get
10 a motion on the record regarding matters that
11 came up during the course of MUSC's case and
12 why we believe that Trident is entitled to
13 judgement as a matter of law. We've already
14 heard a lot of discussion, so I'm going to try
15 to go through this quickly, Your Honor.

16 The Operating Agreement of MUSC Health
17 Cancer Care Network was not before the
18 Department. And I've got sympathy for the
19 Department in this regard in terms of receiving
20 an application from the Authority, but not
21 knowing anything about Alliance. I heard Ms.
22 Murdock testify that she didn't know anything
23 about Alliance. So, from her perspective,
24 she's reviewing an application from MUSC, the
25 Authority. But what we learned through the



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ROA_1315

1 course of discovery, again, these documents
2 were produced as confidential, but the
3 Operating Agreement is a joint venture and we
4 now know that MUSC Health is referred to in
5 that document -- and that's Trident's Number
6 14.

7 (Petitioner's Exhibit Number 14 was introduced into
8 the record.)

9 MR. SUMMER: MUSC Health is referred to in that
10 document as a 501(c)(3) corporation. It was
11 confusing to us, because MUSC Health had been
12 used as a d/b/a. In Dr. Cawley's deposition he
13 had said, you know, when we say MUSC Health, we
14 mean everything, we mean everybody, we mean the
15 Authority. Well, his Direct Examination spent
16 a great deal of time -- if y'all remember, they
17 literally went through with him and clarified
18 that MUSC Health in this operating agreement is
19 actually what is known today as MUSC Strategic
20 Ventures. And it was incorporated as a not-
21 for-profit 501(c)(3) and it's not the
22 Authority. So, that much got cleared up by Dr.
23 Cawley. If we look at that document, it's a
24 joint venture. And he referred to it as a
25 joint venture with a for-profit entity. He was



1 very definitive about that and said it a couple
2 of times.

3 The purpose of the Network -- and I'm
4 trying to use single nouns for what we're
5 dealing with, single-word nouns. We've got a
6 University, we have an Authority. And we'll
7 get to a minute why those are separate and
8 distinct legal entities. For purposes of what
9 we're talking about here, the Network is a for-
10 profit joint venture formed in Delaware. Why
11 in the world a South Carolina school is forming
12 companies in Delaware, I don't know, but it's
13 a Delaware LLC. And its business to be
14 conducted by this company shall be to hold,
15 directly or through one or more operating
16 companies, ownership interests in centers --
17 centers is defined in that document as
18 radiation therapy centers -- to provide
19 services for the entire oncology service line
20 for the centers and carry on any and all
21 activities necessary, proper, convenient, or
22 advisable in connection therewith. Their job
23 is to own an operate radiation therapy centers,
24 like the proposed project that's before The
25 Court. That's not what they told DHEC. And



1 not until we got this confidential document did
2 we start to understand what was going on.

3 You'll remember that I Crossed Dr. Cawley,
4 because I was trying to figure out, okay, who's
5 on first, what's on second, I don't know who's
6 on third. Who really runs this company? If
7 you go to Article X, 10.2 Board of Managers,
8 you'll remember that I took Dr. Cawley through
9 the fact that Alliance controls this company.
10 And Alliance has three board members that are
11 on the Board of Managers. And MUSC gets to
12 appoint two. But, again, those MUSC members
13 are coming from what we now know as Strategic
14 Ventures.

15 Also important, Your Honor, is the exhibit
16 to that document. Again, we're in Trident's
17 Exhibit 14, which is the Operating Agreement.
18 It's owned 51 percent by Alliance, a for-profit
19 company. MUSC has 49 percent. So, MUSC put
20 up \$49,000 of public funds, Alliance puts up
21 \$51,000 of private funds and they capitalize
22 and create a for-profit company. And that's
23 without refutation. And so, that is the entity
24 that is going to own and operate. And how do
25 we know that? Because Dr. Cawley testified



1 it's going to be off his balance sheet, it's
2 going to be owned and operated by and through
3 Alliance in this joint venture. Why do we know
4 that? Because he said every bit of equipment
5 -- page 93 of his trial transcript. Every bit
6 of equipment that's going to be in this project
7 is going to be owned through Alliance.

8 In a prior life I used to teach
9 composition to college students. And it was
10 very frustrating to me that, in order to write
11 an essay, you really need to know how to write
12 an English sentence. And I used to make
13 college freshmen diagram sentences so that we
14 can learn a building-block process. It's very
15 -- and I'm just that way, I'm visual, I got to
16 see it. It's important for The Court to look
17 at the enabling legislation that we have for
18 this entity.' And I'm going to pass this
19 around, just so that everybody can refer to it.
20 This is the enabling legislation for the
21 Medical University.

22 Now, the Medical University's an
23 interesting animal. It came into the fold --
24 it had been a private medical college. It came
25 into the fold -- came into the state in the



1 early 19th century or early 18 -- excuse me,
2 early 20th century. And this enabling
3 legislation has been amended from time to time.
4 And it's section 59-123-10 of the South
5 Carolina Code. Up until the year 2000 there
6 was a board of trustees and a university and
7 that's all that existed. Beginning in 2000
8 with Act number 264, the legislature created a
9 dichotomy. And it's laid out in this law.

10 I can understand -- and I'm not sitting
11 here today to say that what has gone on has
12 been with mal-intent or nefarious. I do
13 believe, when you have a single board that is
14 charged by the legislature to wear one hat on
15 one vote and one hat on another, that it's
16 going to be confusing for even the best of
17 counsel, much less the lay people who are
18 sitting on that board. But this is the
19 construct created by the legislature. And if
20 we look specifically -- look at 59-123-60, that
21 is the section that talks about the board and
22 what its powers are. And this is the board of
23 trustees for the University only. And they
24 have three enumerated powers. They can make
25 bylaws and regulations for their operations,



1 they can confer degrees for what it is that
2 they do and they teach, and they can make
3 contracts that hold property and real estate.
4 But that's their enabling legislation. That's
5 it. That's all that exists. They have no
6 authority to create other entities, not-for-
7 profit or otherwise.

8 If we continue to read in the statute and
9 we go over to Section (E), you'll see an
10 interesting creation. And that is the creation
11 of the Authority. And what it allows the Board
12 to do is to basically constitute itself for
13 purposes of governing hospitals, clinics, and
14 other healthcare related facilities, all of
15 which in the Act are called the hospital. So,
16 any time the word hospital is used in the Act,
17 it means any facility in which care is given.
18 And it's interesting to know that at the same
19 time that this governing body is created, all
20 of the assets were placed into the Authority.
21 And what they're saying herein, whenever the
22 Board function in its capacity as the governing
23 body of the hospital, which is what we're here
24 today for, creating that linear accelerator is
25 a healthcare facility -- we know that because



1 it's defined in 61-15 of the South Carolina
2 Code of Regulations, that a linear accelerator,
3 radiation therapy center, is a healthcare
4 facility under state law. Whenever the Board
5 functions in its capacity as the governing body
6 of the hospital, the Board of Trustees is
7 constituted and designated as the Medical
8 University Hospital Authority, an agency of the
9 State of South Carolina. That's interesting.
10 Not a political subdivision, but an agency of
11 the state itself. The Board, as the governing
12 body of the Authority, has the powers granted
13 the Board of Trustees of the Medical University
14 of South Carolina under this chapter and the
15 following. And Your Honor can see that it goes
16 on and on with different authorities expanded,
17 very broad authorities.

18 But for purposes of why we're here today,
19 if we look at (E)(13), it may -- the Board may
20 establish such not-for-profit corporations as
21 the Board considers necessary to assist the
22 Authority in carrying out its functions;
23 provided, that any entity created pursuant to
24 this subsection is considered to be an entity
25 of the Authority and subject to all laws and



1 regulations applicable to the Authority under
2 this section. Then it goes on and says, the
3 formation of for-profit corporations by the
4 Authority is strictly prohibited. But I want
5 to go back to that prior sentence. They have
6 the ability to create Strategic Ventures. They
7 can create a 501(c)(3). But, Your Honor, that
8 entity, Strategic Ventures, must comply with
9 all the laws that would be applicable to the
10 Authority as a governmental entity. That's an
11 incredible mandate. And I think it's
12 important.

13 So, if we go back and we look, when we
14 look at the law as it was amended by Act 264 in
15 2000, it creates two coterminous entities; the
16 Hospital Authority on the one side, the
17 University on the other. The Authority has
18 clearly seen fit to create MUSC's Strategic
19 Ventures. But there's a mandate from the
20 legislature that whatever you create has to be
21 treated like it's a public entity. It has to
22 be treated like it's the Authority. So, now,
23 why is that important? It's important because
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18 constitution clearly prohibits public agencies.
19 And what is the Authority, Your Honor? It is
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21 That's what the statute says. In this case it
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23 talking about the Research Authority, from
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25 parties. Can't do it.



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2 here in trying to utilize a not-for-profit, but
3 our Supreme Court had another occasion to look
4 at indirect ownership. And that's the O'Brien
5 versus ORBIT case. And that was in 2008. And
6 I think the most important takeaway there is
7 you had the municipality attempting to create
8 a trust. Okay, we'll create this trust and
9 we'll let the trust go out in the stock market
10 and buy equities. And I think, you know, The
11 Court is basically saying no. You got to
12 unwind it, you got to send the money back to
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14 what you can't do directly. But I think the
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17 in the enabling legislation for the Authority,
18 that anything that the Authority creates has to
19 be treated as though it were a public entity
20 and treated with -- and affected by the same
21 laws. You basically come down with this
22 notion. And this is what the Order of The
23 Court said: Because the obvious purpose of
24 ORBIT is to invest in equity securities, this
25 trust, is to invest in equity securities and



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1 attempt to circumvent the constitutional
2 prohibition on investing in equity securities,
3 it had an illegal purpose. And therefore The
4 Court said you got to unwind it.

5 And so, Your Honor, we have -- we've
6 prepared a motion, which lays out all of these
7 legal arguments. And I'm certain that opposing
8 counsel's going to want to respond to that.
9 I'm just trying to preserve this for the
10 record. But we believe that Trident is
11 entitled to a judgement as a matter of law.
12 And that's because, as a matter of law, the
13 application, as submitted, constitutes an
14 illegal joint venture and must be denied. So,
15 from our perspective, there's just no way that
16 this entity, the Network, can use public funds
17 to own and operate this venture and not violate
18 Article X of the South Carolina Constitution.
19 And because of that, we don't see how that
20 application can be approved.

21 In DHEC's defense, none of this
22 information was made available to DHEC while
23 this application was being reviewed. This
24 information was produced last fall during the
25 course of discovery and through the testimony



1 that we've now gotten from Dr. Cawley in his
2 case about exactly who each of these legal
3 entities are.

4 But Strategic Ventures, remember Dr.
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6 that to do what we couldn't do. We created
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8 That's what it's there for. And I don't think
9 there was anything nefarious in this, but it's
10 not legal. And because it's not legal, we
11 don't believe this Court can approve it.

12 And I think last, Your Honor, just to --
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14 this argument is under the Travelscape case,
15 the Supreme Court has now said that these
16 arguments have to be presented in ALC case in
17 order for the Court of Appeals or Supreme Court
18 to consider them above. And so, before the
19 close of evidence in this case, we wanted to
20 get this motion on the record, so that we could
21 clearly preserve this issue for appeal. Thank
22 you, Your Honor.

23 **THE COURT:** All right. Before we move anywhere,
24 I've got a question. In this motion have you
25 addressed the authority of this Court to



1 entertain this motion?

2 **MR. SUMMER:** I have, Your Honor.

3 **THE COURT:** Okay. Mr. Westbrook, Mr. Dayhuff, I
4 cannot and will not, do not expect you to
5 respond to this motion today. I expect -- I
6 would appreciate if you, likewise, would take
7 -- what's a fair period of time?

8 **MR. WESTBROOK:** Your Honor, you know, I've obviously
9 heard Mr. Summer's argument, but I haven't read
10 his brief. Could we -- I'm not sure what a
11 fair amount of time is right now to respond.
12 But I would think something of this magnitude
13 I would -- well, let me ask you this. We have
14 some other housekeeping things that we have to
15 do in this. For example, establish a time for
16 proposed orders and probably some other things
17 related to exhibits as well. Are we going to
18 -- we had talked about holding some time for
19 tomorrow. Is that still are we still going to
20 meet in the morning?

21 **THE COURT:** We can.

22 **MR. WESTBROOK:** Well, we don't have to. I'm just
23 asking. It seems to me we're going to need to
24 meet at some point to discuss that. And I
25 would like to have at least until whenever that



1 is to give you my request for how long before
2 I -- we can get you a response to this.

3 **MR. SUMMER:** And we understand they need time and we
4 don't have any objection to that.

5 **THE COURT:** Okay. Well, let's -- we'll adjourn for
6 today and reconvene at 10:00 o'clock in the
7 morning. Is that okay? We'll reconvene at
8 10:00 o'clock in the morning and discuss the
9 housekeeping chores that we have, which will
10 include the court reporter's time to transcribe

11 this hearing.

12 **MR. WESTBROOK:** That would, you know, certainly be -

13

14 **THE COURT:** If that would be acceptable to the
15 parties.

16 **MR. WESTBROOK:** Yeah. That's be great.

17 **MR. SUMMER:** That's fine, Your Honor.

18 **THE COURT:** So, we'll adjourn until 10:00 o'clock in
19 the morning.

20 (There being nothing further, the post trial motion
21 concluded at 4:17 p.m.)

22

23

24

25



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ROA_1329

South Carolina Health Plan



Enacted 13 August 2015



JOINT
TRIAL EXHIBIT

5

ROA_1330

MUSC_02920

CHAPTER IX

RADIATION ONCOLOGY

Cancer is a group of related diseases that involve out-of-control growth and spread of abnormal cells. These cells accumulate and form tumors that invade and destroy normal tissue. The American Cancer Society (ACS) estimates that 1 in 2 men and 1 in 3 women will suffer from cancer during their lifetimes. The most common types of cancer include prostate cancer for men, breast and uterine cancer for women, whereas lung and colon cancer are a common occurrence in both genders. The Department tracks the occurrence of cancer in the State, including identification of “cancer cluster” locations, through the South Carolina Central Cancer Registry. The five-year survival rate in South Carolina for all persons diagnosed with cancer was 68% from 2003 to 2009. This was an increase from the 49% survival rate calculated for 1975-1977.

Megavoltage radiation has been utilized for decades as a standard modality for cancer treatment. It is best known as Radiation Therapy, but is also called Radiotherapy, X-Ray Therapy, or Irradiation. It kills cancer cells and shrink tumors by damaging their genetic material, making it impossible for these cells to continue to grow and divide. Approximately 50% of all cancer patients receive radiation therapy at some time during their illness, either alone or in combination with surgery or chemotherapy. It can be used as a therapeutic treatment (to attempt to cure the disease), a prophylactic treatment (to prevent cancer cells from growing in the area receiving the radiation) or as a palliative treatment (to reduce suffering and improve quality of life when a cure is not possible).

Beams of ionizing radiation are aimed to meet at a specific point and deliver radiation to that precise location. The amount of radiation used is measured in “gray” (Gy) and varies depending on the type and stage of cancer being treated. Radiation damages both cancer cells and normal cells, so the goal is to damage as many cancer cells as possible, while limiting harm to nearby healthy tissue. A typical course of treatment lasts for two to ten weeks, depending on the type of cancer and the treatment goal.

Relevant Definitions

There are varying types of radiation treatment, and definitions are often used interchangeably. The following definitions apply:

“Adaptive Radiation Therapy (ART)” – Patient setup and/or radiation delivery is evaluated and modified periodically during the treatment course based on imaging and dose measurements made prior to or during treatment.

“Conformal Radiation Therapy (CRT)” – Since the target often has a complex shape, CT, MRI, or PET is used to create a 3-D image of the tumor. Using the image, the computer designs the radiation beams to be shaped exactly (conform) to the contour of the treatment area. This type of therapy is provided through a number of methods know by different names.

“Electronic Portal Imaging Devices (EPIDs)” have been developed because of the increased complexity of treatment planning and delivery techniques. The most common EPIDs are video-based systems wherein on-line digital port images are captured and analyzed before or during treatment. These systems are used for pre-treatment verification of Intensity Modulated Radiation Therapy fields and to reduce errors in patient positioning.

“Fractionation” is the practice of providing only a small fraction of the entire prescribed dose of radiation in each treatment or session. Individual treatment plans are created to minimize the side effects for normal tissue. The typical fractionation schedule for adults is once per day, five days a week. Hyperfractionation (Superfractionation) refers to radiation given in smaller doses twice a day. In Hypofractionation, individual doses are given less often than daily, such as in two-five sessions.

“Image-Guided Radiation Therapy (IGRT)” visualizes (by means of EPIDs, kV scans or mV scans) the patient’s anatomy during treatments. This allows for confirmation of beam location and adjustment of the beams if needed during treatments due to breathing. IGRT facilitates more accurate patient positioning and reduces healthy tissue damage.

“Intensity Modulated Radiation Therapy (IMRT)” creates a 3-D radiation dose map to treat the tumor. It uses a multi-leaf collimator to modulate or control the outlines and intensity of the radiation field during cancer treatment. Due to its precision it can spare more healthy tissue, but it also requires detailed data collection and takes longer than conventional therapy.

“Stereotactic Body Radiation Therapy (SBRT)” is a precision radiation therapy delivery concept derived from cranial stereotactic radiosurgery. It is characterized by one to five fraction delivery of focal high-dose radiation while limiting dose to surrounding normal tissues. SBRT has become an established treatment technique for lung, liver, and spinal lesions.

“Stereotactic Radiosurgery (SRS)” is a single-session procedure used to treat brain tumors and other brain disorders that cannot be treated by regular surgery. The radiation dose given in one session is usually less than the total dose that would be given with radiation therapy. However, the tumor receives a very high one-time dose of radiation with radiosurgery versus smaller fractions over time with radiation therapy. It is also known as Stereotaxic Radiosurgery or Radiation Surgery.

“Stereotactic Radiation Therapy (SRT)” is an approach similar to Stereotactic Radiosurgery that delivers radiation to the target tissue. However, the total dose of radiation is divided into several smaller doses given over several days, rather than a single large dose. The treatment time per session typically ranges from 30 to 90 minutes for two-five sessions. It can be used to treat both brain and extracranial tumors.

TYPES OF RADIATION EQUIPMENT

Particle Beam (Proton)

Particle beams use heavy charged subatomic particles to deliver radiation to the tumor. Most tumors could be cured with a sufficiently high dose of radiation; however, such a treatment is ineffective due to collateral damage to healthy tissue. Particle therapy can lessen the damage to healthy tissue by tailoring the particle (either a proton particle or a heavier carbon particle) dose to the tumor. Unfortunately, this promising treatment option is not readily available.

Linear Accelerator (X-Ray or LINAC)

The LINAC produces high energy x-rays that are collected to form a beam that matches the size and shape of the patient's tumor. Radiation can be delivered to the tumor from any angle by a rotating robotic arm. A LINAC must be located in a room with lead and concrete walls to keep the rays from escaping. A conventional LINAC requires modifications, such as additional equipment, in order to be used for IMRT or other advanced techniques.

Minimal equipment requirements for a linear accelerator include:

1. ~~At least 1 teletherapy unit, with an energy exceeding 1 megavolt (MV); the~~
distance from the source to the isocenter must be at least 80 cm.
2. Access to an electron beam source or a low energy X-ray unit.
3. Adequate equipment to calibrate and measure dosimetric characteristics of all treatment units in the department.
4. Capability to provide appropriate dose distribution information for external beam treatment.
5. Equipment for accurate simulation of the treatment units in the department (in general, one simulator can service 2-3 megavoltage treatment units).
6. Field-shaping capability.
7. Access to CT scanning capability.

The capacity standards for a linear accelerator vary by the capability of the equipment. A conventional linear accelerator, either with or without EPID, has a capacity of 7,000 treatments per year, based upon an average of 28 patients treated per day, 5 days per week, 50 weeks per year. LINACs with IMRT and IGRT systems (such as Tomotherapy and Novalis TX) take longer to set up and perform treatments than those relying on previously generated images. Therefore, a lower capacity of 5,000 treatments per year is established for such equipment (20 patients treated per day, 5 days per week, 50 weeks per year). IMRT/IGRT machines that perform stereotactic procedures have a lower capacity of 4,500 treatments per year (18 patients treated per day, 5 days per week, 50 weeks per year).

There is also LINAC equipment designed strictly to provide Stereotactic Radiotherapy in 1-5 treatment sessions. These specialized LINACs have an even lower capacity because of the treatment time associated with this type of care. The capacity for such equipment is established as 1,500 treatments per year per unit, based on 6 treatments per day, 5 days per week, for 50 days

per year. The Cyberknife is the only equipment so designated. It is an older generation unit with a previously designated capacity of 1,000 treatments per year. The capacity and need calculations for this facility and service area have also been adjusted.

Cobalt-60 (Photon)

This modality, best known by the trade name of Gamma Knife, is used to perform Stereotactic Radiosurgery. It is primarily used to treat brain tumors, although it can also be used for other neurological conditions like Parkinson's Disease and Epilepsy. Its use is generally reserved for cancers that are difficult or dangerous to treat with surgery. The radiation damages the genetic code of the tumor in a single treatment, preventing it from replicating and causing it to slowly shrink.

The Gamma Knife consists of a large shield surrounding a large helmet-shaped device with separate, fixed ports that allow the radiation to enter the patient's head in small beams that converge on the designated target. A rigid frame is attached to the patient's skull to provide a solid reference for both targeting and treatment. The patient is then sent for imaging, to accurately determine the position of the target. The computer system develops a treatment plan to position the patient and the paths and doses of radiation. The patient is positioned with the head affixed to the couch, and the treatment is delivered.

CERTIFICATE OF NEED STANDARDS FOR RADIOTHERAPY

1. The capacity of a conventional linear accelerator, either with or without EPID, is 7,000 treatments per year.
2. Linear accelerators providing IMRT or IGRT have a capacity of 5,000 treatments per year. A facility must document that it is providing or will provide these specialized treatments in sufficient volume to justify why it should be held to this planning capacity.
3. IMRT/IGRT linear accelerators performing stereotactic procedures have a capacity of 4,500 treatments per year. A facility must document that it is providing or will provide these specialized treatments in sufficient volume to justify why it should be held to this planning capacity.
4. Linear Accelerators designed strictly to provide Stereotactic Radiotherapy have a capacity of 1,500 treatments per year. A facility must document that it is providing or will provide these specialized treatments in sufficient volume to justify why it should be held to this planning capacity.
5. There are 13 service areas established for Radiotherapy units.
6. New Radiotherapy services shall only be approved if the following conditions are met:
 - a. All existing units in the service area have performed at a combined use rate of 80 percent of capacity for the year immediately preceding the filing of the applicant's

Certificate of Need application; and

- b. An applicant must project that the proposed service will perform a minimum number of treatments equal to 50 percent of capacity annually within three years of initiation of services, without reducing the utilization of the existing machines in the service area below the 80 percent threshold. If the new equipment is a specialized radiotherapy unit as described in Standards 2, 3 or 4 above, then the applicant may propose an annual capacity based on the specialized use of the equipment by that applicant. If the applicant can justify this proposed annual capacity, then this capacity will be used in Certificate of Need application calculations, as well as future capacity calculations, for that applicant. The applicant must document where the potential patients for this new service will come from and where they are currently being served, to include the expected shift in patient volume from existing providers.
7. Expansion of an existing service, whether the expansion occurs at the existing site or at an alternate location in the service area, shall only be approved if the service has operated at a minimum use rate of 80 percent of capacity for each of the past two years and can project a minimum use rate of 50 percent of capacity per year on the additional equipment within three years of its implementation. If the additional equipment is a specialized radiotherapy unit as described in either Standards 2, 3 or 4 above, then the existing provider may propose an annual capacity for that additional equipment, based on the specialized use of the equipment by that applicant. If the applicant can justify this proposed annual capacity, then this capacity will be used in CON application calculations, as well as future capacity calculations, for that applicant.
8. The applicant shall project the utilization of the service and document referral sources for patients within its service area, including letters of support from physicians and health care facilities indicating a willingness to refer patients to the proposed service.
9. The applicant must affirm the following:
 - a. All treatments provided will be under the control of a board certified or board eligible radiation oncologist;
 - b. The applicant will have access to a radiation physicist certified or eligible for certification by the American Board of Radiology or its equivalent;
 - c. The applicant will have access to simulation equipment capable of precisely producing the geometric relationships of the equipment to be used for treatment of the patient;
 - d. The applicant will have access to a custom block design and cutting system; and
 - e. The institution shall operate its own tumor registry or actively participate in a central tumor registry.

The Megavoltage Visits Chart and Radiotherapy Chart are located in Chapter XIII of this Plan.

RELATIVE IMPORTANCE OF PROJECT REVIEW CRITERIA

The following project review criteria are considered to be the most important in evaluating Certificate of Need applications for these services:

1. Compliance with the Need Outlined in this Section of the Plan;
2. Community Need Documentation;
3. Distribution (Accessibility);
4. Projected Revenues;
5. Projected Expenses;
6. Financial Feasibility; and
7. Cost Containment.

The benefits of improved accessibility will be equally weighed with the adverse effects of duplication in evaluating Certificate of Need applications for this service.

CERTIFICATE OF NEED STANDARDS FOR STEREOTACTIC RADIOSURGERY

1. The capacity of a dedicated Stereotactic Radiosurgery unit is 300 procedures annually. This is based on an average of two procedures per day times three days per week times 50 weeks per year.
2. The service area for a dedicated Stereotactic Radiosurgery unit is defined as all facilities within 90 minutes one-way automobile travel time.
3. New Radiosurgery services shall only be approved if the following conditions are met:
 - a. All existing dedicated Stereotactic Radiosurgery units in the service area have performed at a combined use rate of 80 percent of capacity for the most recent year; and
 - b. An applicant must project that the proposed service will perform a minimum of 200 procedures annually within three years of initiation of service, without reducing the utilization of existing units below the 80 percent threshold.
4. Expansion of an existing radiosurgery service shall only be approved if the service has operated at a minimum use rate of 80 percent of capacity for each of the prior two years and can project a minimum of 200 procedures per year on the additional equipment within three years of its implementation.
5. The applicant shall project the utilization of the service, to include:
 - a. Epidemiological evidence of the incidence and prevalence of conditions for which

radiosurgery treatment is appropriate, to include the number of potential patients for these procedures;

- b. The number of patients of the applicant who were referred to other radiosurgery providers in the preceding three years and the number of those patients who could have been served by the proposed service; and
 - c. Current and projected patient origin information and referral patterns for the facility's existing radiation therapy services. The applicant shall document the number of additional patients, if any, that will be generated through changes in referral patterns, recruitment of specific physicians or other changes in circumstances.
- 6. The applicant must include letters of support from physicians and health care facilities indicating a willingness to refer patients to the proposed service.
 - 7. The applicant must document that protocols will be established to assure that all clinical radiosurgery procedures performed are medically necessary and that alternative treatment modalities have been considered.
 - 8. The applicant must affirm the following:
 - a. The radiosurgery unit will have a board certified neurosurgeon and a board certified radiation oncologist, both of whom are trained in stereotactic radiosurgery;
 - b. The applicant will have access to a radiation physicist certified or eligible for certification by the American Board of Radiology or its equivalent;
 - c. Dosimetry and calibration equipment and a computer with the appropriate software for performing radiosurgical procedures will be available;
 - d. The applicant has access to a full range of diagnostic technology, including CT, MRI and angiography; and
 - e. The institution shall operate its own tumor registry or actively participate in a central tumor registry.
 - 9. Due to the unique nature and limited need for this type of equipment, the applicant should document how it intends to provide accessibility for graduate medical education students in such fields as neurosurgery and oncology.

RELATIVE IMPORTANCE OF PROJECT REVIEW CRITERIA

The following project review criteria are considered to be the most important in evaluating Certificate of Need applications for these services:

1. Compliance with the Need Outlined in this Section of the Plan;
2. Community Need Documentation;
3. Distribution (Accessibility);
4. Projected Revenues;
5. Projected Expenses;
6. Financial Feasibility; and
7. Cost Containment.

The benefits of improved accessibility will be equally weighed with the adverse effects of duplication in evaluating Certificate of Need applications for this service.

MEGAVOLTAGE VISITS
(Chapter IX)

<u>FACILITY BY REGION</u>	<u>COUNTY</u>	<u># UNITS</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
REGION I					
Anmed Health Medical Center	Anderson	2	11,643	12,050	12,816
GHS Cancer Centers of the Carolinas - Andrews	Greenville	1	4,848	4,742	3,619
GHS Cancer Centers of the Carolinas - Eastside	Greenville	1	6,875	7,464	7,116
GHS Cancer Institute - Faris	Greenville	3	14,838	14,803	13,548
GHS Cancer Institute - Greer	Greenville	1	4,753	3,760	4,183
St. Francis Millenium Cancer Center	Greenville	1	--	--	--
GMH - Cancer Centers of the Carolinas - Oconee	Oconee	1	6,173	5,473	4,542
Baptist Medical Center Easley	Pickens	1	--	--	--
Cancer Centers of the Carolinas - Spartanburg	Spartanburg	1	656	2,443	3,058
Spartanburg Regional Medical Center <i>I</i>	Spartanburg				
Linear Accelerators		4	17,298	17,643	17,790
Cyberknife		1			
REGION II					
Self Regional Healthcare	Greenwood	2	7,782	6,750	7,374
Lancaster Radiation Therapy Center	Lancaster	1	4,104	3,983	2,675
Lexington Medical Center <i>2</i>	Lexington	3	11,953	13,457	13,858
Newberry Oncology Associates	Newberry	1	4,104	3,983	2,675
Palmetto Health Richland	Richland				
Linear Accelerators		4	1,040	714	799
Gamma Knife		1	199	161	158
South Carolina Oncology Associates	Richland	4	2,032	21,463	21,817
Radiation Oncology, LLC	Richland	6	31,531	26,903	30,624
Rock Hill Radiation Therapy Center	York	2	10,950	11,541	11,002
REGION III					
Carolinas Hospital System	Florence	1	3,693	2,815	3,064
McLeod Regional Medical Center - Pee Dee	Florence	4	18,522	20,333	17,147
Francis B Ford Cancer Center <i>3</i>	Georgetown	1	5,305	5,515	6,193
Carolina Regional Cancer Center	Horry	2	25,709	22,978	22,143
Carolina Regional Cancer Center - Conway <i>4</i>		1			
Carolina Regional Cancer Center - Murrels Inlet <i>5</i>		1			
Tuomey	Sumter	2	9,499	11,533	9,204
REGION IV					
Radiation Oncology Center of Aiken	Aiken	6	31,531	26,903	30,624
SJC Oncology Services - SC	Beaufort	1	6,036	4,730	4,385
Beaufort Memorial Hospital	Beaufort	1	4,206	3,206	4,686
MUSC Medical Center	Charleston				
Linear Accelerators		5	20,290	20,288	19,824
Gamma Knife		1	163	185	202
Roper Hospital	Charleston	4	15,938	14,565	14,209

**MEGAVOLTAGE VISITS
(Chapter IX)**

<u>FACILITY BY REGION</u>	<u>COUNTY</u>	<u># UNITS</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Trident Medical Center	Charleston	2	11,411	11,011	11,724
Regional Medical Center of Orangeburg & Calhoun Counties	Orangeburg	2	6,579	6,543	6,761
	Totals		299,661	307,938	307,820

- 1 Gibbs Regional Cancer Center utilization included with Spartanburg Regional Medical Center. CON SC-14-03 issued
- 2 CON SC-14-05 issued 7/10/14 for the addition of one (1) linac for a total of three (3) linacs.
- 3 CON approved 9/26/11 to relocate the facility from Georgetown to Murrell's Inlet; appealed.
- 4 CON SC-15-24 issued 6/18/15.
- 5 CON approved 9/26/11 to relocate one linac from the existing location in Myrtle Beach to Murrell's Inlet; appealed.

RADIOTHERAPY
(Chapter IX)

<u>SERVICE AREAS</u>	<u>2013 POPULATION</u>	<u># OF LIN ACC</u>	<u>POP PER LIN ACC</u>	<u>TOTAL AREA TREATMENTS</u>	<u>TREATMENTS PER LIN ACC</u>	<u>PLANNING AREA CAPACITY</u>	<u>UNMET NEED?</u>	<u>PERCENT CAPACITY</u>
ANDERSON, OCONEE	265,686	3	88,562	20,376	6,792	18,500	NEED	110.1%
GREENVILLE, PICKENS	594,095	8	74,262	28,466	3,558	53,500	---	53.2%
CHEROKEE, SPARTANBURG, UNION	374,884	6	62,481	20,848	3,475	32,500	---	64.1%
CHESTER, LANCASTER, YORK	352,399	3	117,466	13,677	4,559	21,000	---	65.1%
ABBEVILLE, EDGEFIELD, GREENWOOD, LAURENS, MCCORMICK, SALUDA	217,433	2	108,717	7,374	3,687	14,000	---	52.7%
FAIRFIELD, KERSHAW, LEXINGTON, NEWBERRY, RICHLAND	796,154	19	41,903	69,931	3,681	61,000	NEED	114.6%
CHESTERFIELD, DARLINGTON, DILLON, FLORENCE, MARION, MARLBORO	343,762	5	68,752	20,211	4,042	32,500	---	62.2%
CLARENDON, LEE, SUMTER	160,825	2	80,413	9,204	4,602	14,000	---	65.7%
GEORGETOWN, HORRY, WILLIAMSBURG	383,157	5	76,631	28,336	5,667	33,000	NEED	85.9%
BAMBERG, CALHOUN, ORANGEBURG	121,427	2	60,714	6,761	3,381	14,000	---	48.3%
ALLENDALE, BEAUFORT, HAMPTON, JASPER	228,714	2	114,357	9,071	4,536	14,000	---	64.8%
BERKELEY, CHARLESTON COLLETON, DORCHESTER	750,008	12	62,501	45,959	3,830	62,500	---	73.5%
AIKEN, BARNWELL	186,295	6	31,049	30,624	5,104	42,000	---	72.9%
STATE TOTAL	4,774,839	75	63,665	310,838	4,145	412,500	---	75.4%



MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)
Basic Financial Statements and Required Supplementary Information
June 30, 2017
(With Independent Auditors' Report Thereon)

Confidential

MUSC_00872

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MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

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KPMG LLP
Suite 400
300 North Greene Street
Greensboro, NC 27401

Independent Auditors' Report

The Board of Trustees
Medical University Hospital Authority:

We have audited the accompanying financial statements of the Medical University Hospital Authority (the Authority), a component unit of The Medical University of South Carolina, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Medical University Hospital Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Medical University Hospital Authority as of June 30, 2017, and the changes in its net position and its cash flows for the year then ended, in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in note 1(m) to the financial statements, during fiscal year 2017, the Authority adopted Governmental Accounting Standards Board Statement No. 82, *An Amendment of GASB Statements No. 67, No. 68, and No. 73*. Our opinion is not modified with respect to this matter.

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Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 3–13 and the schedules of proportionate share of the net pension liability to PEBA and the schedules of employer contributions to PEBA on pages 47–50 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 28, 2017 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

KPMG LLP

Greensboro, North Carolina
September 28, 2017

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2017

(Unaudited)

Our discussion and analysis of Medical University Hospital Authority's (the Authority) financial performance provides an overview of the activities for the fiscal year ended June 30, 2017.

The intent of this discussion and analysis is to provide further information regarding the Authority's financial performance as a whole. Readers should also review the basic financial statements, along with the notes to the basic financial statements, to further enhance their understanding of the Authority's financial performance.

Financial Highlights – Fiscal Years 2017 and 2016

At June 30, 2017, the Authority's liabilities and deferred inflows of \$1,332.9 million exceeded its assets and deferred outflows of \$1,327.5 million by \$5.4 million. This financial result is again driven by the implementation of Governmental Accounting Standards Board (GASB) 68 in fiscal year 2015. Net position, the residual interest in the assets and deferred outflows after liabilities and deferred inflows are deducted, increased by \$64.5 million in 2017, as compared to an increase of \$37.5 million in 2016.

The Authority reported operating income in 2017 of \$46.5 million, as compared to operating income of \$14.9 million in 2016, an increase of \$31.6 million. The major drivers for this increase in operating income include a net increase of 5.6% in operating revenues, largely resulting from volume increases in discharges, transplant procedures, and outpatient surgeries.

Net nonoperating revenue was \$27.0 million for 2017, as compared to \$22.5 million in 2016, an increase of \$4.5 million or 19.8%. The major driver for this net increase is more than \$25 million in Medical University of South Carolina (MUSC) Foundation donations for the Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion (CHWP).

Overview of the Financial Statements

The Authority is a major discretely presented component unit of the Medical University of South Carolina (the University) that owns and operates the clinical teaching sites of the University and serves the State of South Carolina as a principal diagnostic and treatment referral center.

The Authority's basic financial statements consist of three statements – a Statement of Net Position; a Statement of Revenues, Expenses and Changes in Net Position; and a Statement of Cash Flows. These basic financial statements are prepared in accordance with GASB principles and provide detailed information about the activities of the Authority and generally provide an indication of the Authority's financial health.

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Authority's resources and its activities. The Statement of Net Position presents the assets, both restricted and unrestricted, deferred outflows and inflows of resources and all liabilities using the accrual basis of accounting. The Statement of Revenues, Expenses and Changes in Net Position reports all revenues and expenses for the time period indicated, regardless of when cash is received or paid, as well as payments to the University and University Medical Associates (UMA/MUSCP). These two statements report the Authority's net position and its changes.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2017

(Unaudited)

The Statement of Cash Flows

The final required statement is the Statement of Cash Flows. This statement reports cash receipts, cash payments and net changes in cash resulting from operating, investing and capital and noncapital-related financing activities.

The Authority's Net Position

The Authority's net position is the difference between its assets and deferred outflows and liabilities and deferred inflows reported in the Statement of Net Position. A comparative summary of assets, deferred outflows, liabilities, deferred inflows and net position is as follows:

Summary Schedule of Net Position

(In thousands)

	<u>2017</u>	<u>2016</u>
Assets:		
Current assets	\$ 557,319	444,622
Investments	51,624	52,356
Capital assets, net	<u>556,737</u>	<u>512,516</u>
Total assets	1,165,680	1,009,494
Deferred outflows	<u>161,805</u>	<u>98,357</u>
Total assets and deferred outflows	\$ <u>1,327,485</u>	\$ <u>1,107,851</u>
Liabilities:		
Current liabilities	\$ 194,313	171,912
Long-term debt	383,599	359,324
Net pension liability	746,860	645,307
Other liabilities	<u>7,229</u>	<u>—</u>
Total liabilities	1,332,001	1,176,543
Deferred inflows	<u>878</u>	<u>1,154</u>
Total liabilities and deferred inflows	\$ <u>1,332,879</u>	\$ <u>1,177,697</u>

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2017

(Unaudited)

Summary Schedule of Net Position

(In thousands)

	<u>2017</u>	<u>2016</u>
Net position:		
Net investment in capital assets	\$ 172,454	164,574
Restricted:		
Under indenture agreements	51,461	52,356
Capital projects	23,839	25,000
Major programs	29,819	30,759
Unrestricted deficit	<u>(282,968)</u>	<u>(342,535)</u>
Total net position	\$ <u>(5,395)</u>	<u>(69,846)</u>

Analysis of the Financial Position as of June 30, 2017 Compared to June 30, 2016

Total assets and deferred outflows increased \$219.6 million or 19.8% from \$1,107.9 million in 2016 to \$1,327.5 million in 2017. The major drivers for this increase are unrestricted cash and cash equivalents increased \$107.3 million; net capital assets increased \$44.2 million; and deferred outflows for pension activity increased \$63.4 million in 2017. Unrestricted cash mainly increased from higher collections resulting from volume increases in discharges, transplants, and outpatient surgeries.

Total liabilities and deferred inflows increased \$155.2 million or 13.2% from \$1,177.7 million in 2016 to \$1,332.9 million in 2017. The major drivers for this increase are net pension liability increased \$101.6 million; long-term debt and capital lease obligations increased \$24.3 million, mainly due to the acquisition of new debt for the CHWP and other accrued expenses increased \$9.1 million due to a Disproportionate Share Hospital (DSH) payable.

From the data presented, readers of the Statement of Net Position are able to determine the assets available to continue the operations of the Authority. They are also able to determine how much is owed to vendors, employees and others. Finally, the Statement of Net Position provides a picture of the net position (assets and deferred outflows minus liabilities and deferred inflows) and their availability for expenditure.

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Management's Discussion and Analysis

June 30, 2017

(Unaudited)

Operating Results and Changes in the Authority's Net Position

Revenues, Expenses and Changes in Net Position

(In thousands)

	<u>2017</u>	<u>2016</u>
Operating revenues:		
Net patient service revenue	\$ 1,370,067	1,301,324
Other revenue	31,385	25,333
Total operating revenues	<u>1,401,452</u>	<u>1,326,657</u>
Operating expenses:		
Compensation and employee benefits	570,285	554,624
Pension benefits	33,792	13,311
Services and supplies	684,571	679,934
Depreciation and amortization	66,268	63,841
Total operating expenses	<u>1,354,916</u>	<u>1,311,710</u>
Operating income	<u>46,536</u>	<u>14,947</u>
Nonoperating revenues, (expenses):		
State appropriations	29,000	42,000
Gifts and grants	25,982	550
Investment income	(1,440)	4,377
Interest expense	(18,295)	(15,388)
Loss on disposal of capital assets	(1,548)	(7,297)
CHWP bond issuance cost	(5,167)	(738)
Other nonoperating expenses	<u>(1,565)</u>	<u>(1,000)</u>
Total nonoperating revenues	26,967	22,504
Nonoperating payments to MUSC and UMA	<u>(9,052)</u>	<u>—</u>
Increase in net position	<u>\$ 64,451</u>	<u>37,451</u>

The Statement of Revenues, Expenses and Changes in Net Position presents the revenues earned and expenses incurred during the year. Activities are reported as either operating or nonoperating. Operating revenues are received for providing goods and services. Operating expenses are paid to acquire or produce the goods and services and to carry out the mission of the Authority. Nonoperating revenues and expenses are the result of activities for which goods and services are not provided. The utilization of capital assets is reflected in the financial statements as depreciation and amortization, which is the impact of depreciating the cost of each asset over its expected useful life. Changes in net position are based on the activity presented in the Statement of Revenues, Expenses and Changes in Net Position.

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Analysis of Operating Results for the Year ended June 30, 2017 Compared to the Year ended June 30, 2016

Net Patient Service Revenue

Compared to fiscal year 2016, net patient service revenue increased by approximately \$68.7 million, or 5.3%. Gross patient charges increased by \$355.9 million, or 9.86%, from 2016 to 2017 due to increases in patient activity and comprehensive rate increases. Net revenue related to the DSH program administered by the state Department of Health and Human Services decreased in 2017 to \$29.7 million from \$48.0 million in 2016. There can be no assurance that the Authority will continue to qualify for future participation in the DSH program or that the DSH program will not ultimately be discontinued or materially modified.

Payor class percentages changed somewhat from 2017 to 2016, showing an increase in Blue Cross and medically indigent/self-pay/other payor classes and a decrease in Medicare, Medicaid and private insurance/managed care payor classes as shown in the table below:

Percentage of Net Patient Service Revenue by Payor Class

	<u>2017</u>	<u>2016</u>
Blue Cross	28 %	27 %
Medicare	31	32
Medicaid	21	24
Private insurance/managed care	13	14
Medically indigent/self-pay/other	7	3
Total	<u>100 %</u>	<u>100 %</u>

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Inpatient Business Activity

Inpatient days of care increased by 2.3%, from 244,525 in 2016 to 250,268 in 2017, as summarized below. Average length of stay for all patients was 6.4 days in 2017 and 6.5 days in 2016. The average daily census increased in 2017 to 686 from the 2016 average of 668. Admissions increased in 2017 to 39,187 from the 2016 level of 37,897. Inpatient surgical procedures decreased 2.3% from 13,935 in 2016 to 13,609 in 2017. Additionally, transplant volume increased by 107 or 34.9% from 2016 to 2017. The Medicare case mix index is a measure of inpatient acuity and it remained flat at 2.2 in fiscal years 2016 and 2017.

Summary of Inpatient Days

	<u>2017</u>	<u>2016</u>
Medical services	\$ 118,038	107,561
Surgical services	59,910	65,677
Psychiatric services	34,572	32,945
Women's services	<u>37,748</u>	<u>38,342</u>
Total inpatient days	<u>\$ 250,268</u>	<u>244,525</u>

Outpatient Business Activity

Outpatient visits volume increased by 20,419 visits, or 1.93%, from 1,055,708 in 2016 to 1,076,127 in 2017. Emergency/trauma visits decreased to 82,337 in 2017 from the 2016 level of 84,060. Outpatient surgical procedures performed in 2017 totaled 16,037, as compared to 15,005 in 2016, an increase of 6.9%.

Deductions from Revenue

Contractual and other adjustments, expressed as a percentage of gross revenue (63.3%), increased 5% from 2016 to 2017. Contractual and other adjustments expressed in dollars increased by \$332.7 million from 2016 to 2017. The increase is due to the fact that reimbursements from Medicare, Medicaid and third-party insurers are less than billed charges and increases in charges implemented by the Authority are not matched by increased reimbursement rates.

The provision for uncollectible accounts decreased \$45.6 million, or 35.4% from 2017 to 2016 to a total of \$83.1 million for the year ended June 30, 2017. The decrease is due to an increase in charity care. The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Authority has established policies under which it provides care to needy members of its communities. These policies include discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$147.7 million and \$110.4 million (as measured by established charges) were provided without charge during fiscal years 2017 and 2016, respectively. The \$37.3 million increase is related to a 47.9% increase in eligible charity care patients from 2016 to 2017. This increase is supported by the Authority's continued focus and efforts on enhancing policy and process to identify and qualify eligible Medicaid and charity care patients.

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In total, uncompensated care write-offs at established rates as measured by the total of bad debts plus charity care totaled 5.6% and 6.4% of gross patient charges for fiscal years 2017 and 2016, respectively.

Operating Expenses

Operating expenses increased by \$43.2 million, from \$1,311.7 million in 2016 to \$1,354.9 million in 2017. This 3.3% increase is primarily the result of continued increasing costs associated with staffing costs and pension expense. These drivers impacted the following increases: compensation and employee benefits of \$15.7 million or 2.8% and pension benefits of \$20.5 million or 153.9%.

Additionally, supply costs and pharmaceutical costs continue to increase at rates exceeding those of general inflation; however, rates of increase are comparable to inflation rates for the healthcare industry. Depreciation and amortization expense increased \$2.4 million or 3.8% in fiscal year 2017.

Summary of Operating Expenses by Function

(In thousands)

	<u>2017</u>	<u>2016</u>
Patient services	\$ 961,538	932,061
General and administrative	327,110	315,808
Depreciation and amortization	<u>66,268</u>	<u>63,841</u>
Total operating expenses	<u>\$ 1,354,916</u>	<u>1,311,710</u>

Capital Assets

As shown in note 4 to the financial statements, at the end of fiscal year 2017, the Authority had \$556.7 million invested in capital assets, net of accumulated depreciation, up from \$512.5 million in net capital assets at the end of fiscal year 2016.

Capital assets not being depreciated increased by \$97.1 million in fiscal year 2017, compared to an increase of \$41.3 million in fiscal year 2016. The major driver for this increase is the construction in progress activity for the CHWP. Additions to construction in progress of \$91.2 million in fiscal year 2017 exceeded fiscal year 2016 additions by \$55.6 million and are discussed below.

Approximately \$81.1 million of the \$91.2 million in construction in progress additions relates to CHWP, Phase II of the Authority's 30-year hospital replacement program. Groundbreaking and construction began on the project in August 2016 and the target opening date is August 2019. The CHWP facility is expected to cost approximately \$384.4 million and to hold about 200 beds at completion.

Decreases to capital assets not being depreciated is made up of approximately \$9.3 million in projects and other capital assets completed and placed into service; this amount is also shown as an increase to capital assets being depreciated.

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There were fewer increases to capital assets being depreciated in fiscal year 2017, from \$69.9 million in fiscal year 2016 to \$25.7 million in fiscal year 2017. This decline results from the focus of capital assets activity being on the construction of the CHWP facility mentioned above.

As part of an ongoing effort to improve the reporting of its capital assets, the Authority reviewed its inventory records and processes for construction assets in fiscal year 2017. Approximately \$34.5 million in assets costs were removed from inventory and most were fully depreciated at disposal. In fiscal year 2016, the Authority demolished Charleston Memorial Hospital and the McClennan-Banks building to prepare the CHWP construction site, resulting in a similar retirement of assets with costs of \$7.9 million and \$5.4 million, respectively, as of June 30, 2016.

Efforts to improve the clinical equipment and vehicle inventory records and processes began in the latter part of fiscal year 2013 and continued into fiscal year 2017. The result is a decrease in the reported costs of assets of approximately \$19.9 million and \$22.2 million in 2017 and 2016, respectively, and most of these assets were fully depreciated at disposal.

The Authority uses both internal funds from operations and external debt capital to finance capital acquisitions. Some capital acquisitions are also funded by state appropriations and federal grants, as available. The most significant debt financing programs are discussed in detail below under 'Financing'.

See note 4 to the financial statements for more details on capital assets.

Financing

The Authority has begun a phased-approach replacement of much of its principal patient care facilities, a project planned for completion in stages over 30 years. Phase I of the project involved building a facility comprised of a four-story diagnostic and treatment center, a seven-story hospitality (bed) tower, and a garden atrium uniting the two sections of the building. Phase I of the project was completed in fiscal year 2008. Ashley River Tower, the 641,000 square-foot facility was opened on February 4, 2008. No new clinical health services were added as a result of this phase of the project.

Phase II will be a Children's Hospital and Women's Pavilion (CHWP). Initial planning began in fiscal year 2016 and continued in fiscal year 2017 with architectural design derived from numerous clinical meetings and discussion of a financing plan. A preapplication document for the \$350 million project was submitted to the U.S. Department of Housing & Urban Development (HUD) relating to the Federal Housing Administration Section 241 loan program in August 2015. At June 30, 2015, almost \$68 million had been secured by way of state funding and philanthropy for Phase II. The State of South Carolina approved \$25 million in the FY 2016 budget and \$10 million in the FY 2017 budget for this project. Shawn Jenkins, a local business owner, pledged \$25 million and the Tourville family pledged another \$10 million. The hospital will be named the MUSC Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion in honor of their generosity. This level of money raised to support the project made HUD financing possible and maintains the hospital's development and construction time line.

On December 22, 2004, the Authority issued \$422.1 million of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004), consisting of \$304.0 million Series A Tax-Exempt

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Bonds and \$118.1 million Series B Taxable Bonds for the purpose of providing funds to (a) pay the costs of Phase I of the project mentioned above, (b) pay a portion of the interest accruing on the bonds during construction of Phase I, (c) prepay the outstanding amount of the Charleston County Memorial Hospital revenue note, (d) advance refund the \$102.8 million Hospital Facilities Refunding Revenue Bonds, Series 2002A, (e) fund a debt service reserve fund with respect to the bonds, and (f) pay certain costs incurred in connection with the issuance of the Bonds.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61.0 million of Economic Development Revenue Bonds, CEP Series 2004. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a Loan Agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square-foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156-bed Phase I Authority project mentioned above. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the Bonds.

On March 15, 2007, the construction of the central energy plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59.4 million bonds into indexed floating rate bonds to reduce the cost of capital and annual debt service payments detailed in note 6 to the financial statements. Concurrent with the conversion of the bonds, MUFC Central Energy Plant, LLC entered into a variable-to-fixed interest rate swap. The intention of the swap was to effectively convert the variable interest rate paid on the bonds to a synthetic fixed rate of 5.755%. This interest rate swap was terminated on December 30, 2013, and a payment of \$2.1 million was made as part of the refinancing of the central energy plant.

Management continues to look for opportunities to reduce nonoperating expenses. With interest expense being the largest nonoperating expense and interest rates at historically low levels, the Authority engaged a financial adviser in fiscal year 2012 to help determine the most effective refinancing vehicle. On December 19, 2012, the refinancing of the Authority's Series 2004 bonds with Government National Mortgage Agency (GNMA) mortgage-backed securities (MBS) was completed. Long-term debt was reduced when funds in the debt service reserve and other accounts of approximately \$47.4 million were made available to reduce principal. Interest was fixed at 2.94% and the amortization schedule was not extended. On December 30, 2013, the Authority refinanced the 2004 Central Energy Plant Economic Development Revenue Bonds (CEP Series 2004 bonds) with GNMA MBS. Interest was fixed at 3.85% and the amortization schedule was not extended.

In April 2013, the Authority entered into a \$13.8 million equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

In November 2016, the Authority closed on a \$316.4 million mortgage for the construction of the (Phase II) MUSC CHWP. The mortgage is insured by HUD through the Federal Housing Administration's (FHA)

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Section 242 Hospital Mortgage Insurance Program, the principal bears interest at 3.59%, the term is 25 years and the first principal payment is due after CHWP opens, which is expected in the fall of 2019.

See note 6 to the financial statements for more details on financing activities.

Current Operating Environment

The U.S. economy continues its recovery from the downturn of the past several years. Management of the Authority monitors these economic conditions closely, both with respect to potential impacts on the healthcare provider industry and from a more general business perspective. While the Authority was able to achieve certain objectives of importance in the current economic environment, management recognizes that economic conditions may continue to impact the Authority in a number of ways, including (but not limited to) uncertainties associated with the global economy, improvement in the unemployment rate and associated impact on uninsured patients, and stress on the federal, state and local budgets. Additionally, the general healthcare industry environment is increasingly uncertain, especially with respect to the impacts of the federal healthcare reform legislation, which was passed in the spring of 2010. Potential impacts of ongoing healthcare industry transformation include, but are not limited to:

- Continuing volatility in the state and federal government reimbursement programs; for example, the Affordable Care Act reduces payments to all hospitals by \$155 billion over ten years; it was projected that these cuts would be offset by the reduction in the uninsured population. While South Carolina chose not to expand Medicaid the uninsured rate has dropped from 18.7% to 15.4%
- Exchange reimbursement levels that are significantly below those of traditional commercial insurance companies, payor policies that do not recognize valid assignment of benefits from patients and send payment for healthcare services to patients. Changes in combined state/federal disproportionate share payments, increasing reliance on managed care plans by Medicare and Medicaid and attendant increases in program complexity and payment delays and impact on the healthcare "demand curve" as the previously uninsured enter the insurance system.
- Effective management of multiple major regulatory mandates, including achievement of meaningful use of Healthcare Information Technology (HCIT)
- Significant potential business model changes throughout the healthcare industry, including recently announced mergers of the nation's largest health insurers

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In South Carolina, in order to control escalating Medicaid costs, the Department of Health and Human Services has maintained the changes that were implemented for hospital service rates to remain at the November 2012 payment levels:

- Inpatient hospital base rates were increased 2.75% on October 1, 2013 and 2.50% on October 1, 2014 and adjusted on October 1, 2015 to maintain the 93% of cost target.
- Inpatient Graduate Medical Education (direct and indirect medical education) reimbursement rates remain at the November 1, 2012 level.
- Outpatient hospital multiplier was adjusted to maintain the 93% of cost target.

These reimbursement rate adjustments have had and will continue to have a significant impact on the Authority's financial performance. To help minimize the impact of this revenue reduction, the Authority continues implementation of a hospital-wide response plan directed at high-impact areas, both clinically and financially. All areas of a patient's stay are reviewed, including (but not limited to) reducing length of stay, standardization of supplies, use of generic versus brand name drugs, staffing ratios, and new information technology to improve medical coding and billing.

The business of healthcare in the current economic, legislative and regulatory environment is volatile. Any of the above factors, along with others both currently in existence and which may or may not arise in the future, could have a material adverse impact on the Authority's financial position and operating results.

During the fiscal year ended June 30, 2016, the Authority created a consolidated clinical enterprise under the brand of MUSC Health. This enterprise is an effort to further integrate the clinical operations of the Authority and MUSC Physicians. Both entities will retain their existing separate legal entities under this enterprise, but will work more closely together to manage their combined clinical operations.

MUSC Health's Integrated Centers of Clinical Excellence (ICCE) are the organizational units of MUSC Health. Committed to care models that improve patient experience and achieve optimal patient outcomes, these comprehensive care teams are led by physician chiefs and charged with providing patients the most innovative, efficient and effective subspecialized care.

Contacting the Authority's Financial Management

This financial report is designed to provide interested parties with a general overview of the Authority's finances and to show the Authority's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Authority's Chief Financial Officer at Medical University Hospital Authority, P.O. Box 250332, Charleston, South Carolina 29425.

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Statement of Net Position

June 30, 2017

Assets and Deferred Outflows

Current assets:	
Cash and cash equivalents	\$ 215,160,012
Cash restricted for capital projects and major programs	42,423,262
Investments restricted for capital projects and major programs	19,939,220
Patient accounts receivable, net of allowance for uncollectible accounts of approximately \$79,600,000	215,658,349
Due from third-party payors	8,582,273
Other current assets	55,555,553
Total current assets	<u>557,318,669</u>
Investments held by trustees under indenture agreements	51,460,891
Investments in joint ventures and partnerships	162,706
Capital assets, net	<u>556,737,311</u>
Total assets	<u>1,165,679,577</u>
Deferred outflows	<u>161,804,958</u>
Total assets and deferred outflows	<u>\$ 1,327,484,535</u>

Liabilities, Deferred Inflows and Net Position

Current liabilities:	
Current installments of long-term debt and capital lease obligations	\$ 22,260,398
Accounts payable	68,426,322
Accrued payroll, withholdings, and benefits	68,148,182
Liabilities payable from current restricted assets	8,703,844
Due to related parties	11,736,625
Other accrued expenses	14,515,649
Unearned revenue	521,859
Total current liabilities	<u>194,312,879</u>
Long-term debt and capital lease obligations net of current installments	383,598,928
Net pension liability	746,860,160
Other liabilities	<u>7,229,315</u>
Total liabilities	<u>1,332,001,282</u>
Deferred inflows	<u>878,235</u>
Total liabilities and deferred inflows	<u>1,332,879,517</u>
Net position:	
Net investment in capital assets	172,453,992
Restricted:	
Under indenture agreements	51,460,891
Capital projects	23,839,082
Major programs	29,819,556
Unrestricted deficit	<u>(282,968,503)</u>
Total net position	<u>(5,394,982)</u>
Total liabilities, deferred inflows, and net position	<u>\$ 1,327,484,535</u>

See accompanying notes to basic financial statements.

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Statement of Revenues, Expenses and Changes in Net Position

Year ended June 30, 2017

Operating revenues:	
Net patient service revenue (net of provision for uncollectable accounts of \$83,116,441)	\$ 1,370,066,698
Other revenue	<u>31,384,513</u>
Total operating revenues	<u>1,401,451,211</u>
Operating expenses:	
Compensation and employee benefits	570,284,785
Pension benefits	33,791,979
Services and supplies	684,571,224
Depreciation and amortization	<u>66,267,743</u>
Total operating expenses	<u>1,354,915,731</u>
Operating income	46,535,480
Nonoperating revenue (expense):	
State appropriations	29,000,000
Gifts and grants	25,982,108
Investment income	(1,439,526)
Interest expense	(18,294,818)
Loss on disposal of capital assets	(1,547,621)
CHWP debt issuance cost	(5,167,360)
Other nonoperating expenses	<u>(1,565,463)</u>
Total nonoperating expenses	26,967,320
Income before payments to MUSC and UMA	73,502,800
Nonoperating expense — payments to MUSC and UMA	<u>(9,051,972)</u>
Increase in net position	64,450,828
Net position, beginning of year	<u>(69,845,810)</u>
Net position, end of year	<u>\$ (5,394,982)</u>

See accompanying notes to basic financial statements.

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Statement of Cash Flows

Year ended June 30, 2017

Cash flows from operating activities:	
Receipts from patients and third-party payors	\$ 1,378,139,469
Other cash receipts	32,878,635
Payments to suppliers and employees	(1,258,128,812)
Net cash provided by operating activities	152,889,292
Cash flows from noncapital financing activities:	
State appropriations	18,000,000
Nonmandatory payments to MUSC and UMA	(9,051,972)
Net cash provided by noncapital financing activities	8,948,028
Cash flows from capital and related financing activities:	
Capital expenditures	(84,915,451)
Capital appropriations	10,000,000
Capital grants and gifts received	28,748,588
Proceeds from disposal of capital assets	123,000
Payments of principal on long-term debt	(17,867,366)
Proceeds from issuance of long-term debt	44,529,222
Payments of bond issuance cost	(5,167,360)
Payments of bond insurance premium	(3,765,070)
Payments on capital lease obligations	(3,811,988)
Payments on equipment replacement obligations	(1,908,426)
Interest payments	(12,049,936)
Net cash used in capital and related financing activities	(46,084,787)
Cash flows from investing activities:	
Proceeds from sale and maturity of investments	13,690,280
Investment income received	1,186,545
Purchases of investments	(43,569,147)
Net distributions from joint ventures and partnerships	(728,169)
Net cash used in investing activities	(29,420,491)
Net increase in cash and cash equivalents	86,332,042
Cash and cash equivalents at beginning of year	174,443,703
Cash and cash equivalents at end of year	\$ 260,775,745
Reconciliation of operating income to net cash provided by operating activities:	
Operating income	\$ 46,535,480
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation and amortization	66,267,743
Provision for uncollectible accounts	83,116,441
Other	(127,869)
Changes in operating assets and liabilities:	
Patient accounts receivable	(99,813,854)
Due from third-party payors	9,348,805
Other current assets	8,911,998
Accounts payable	(3,332,068)
Other accrued expenses and accrued payroll, withholding and benefits	30,595,056
Due to third-party payors	6,168,495
Due to related parties	4,699,206
Unearned revenue	521,859
Net cash provided by operating activities	\$ 152,889,292
Reconciliation of cash and cash equivalents at end of year to the statement of net position:	
Cash and cash equivalents	\$ 215,160,012
Restricted for capital projects and major programs	42,423,262
Included in investments held by trustees under indenture agreements	3,192,471
	\$ 260,775,745
Noncash transactions:	
Capital lease equipment	\$ 2,225,006
Change in fair value of investments	(2,826,094)
Change in capital assets payable	23,890,216
Pro rata income from joint ventures	(440,463)

See accompanying notes to basic financial statements.

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Notes to Basic Financial Statements

June 30, 2017

(1) Summary of Significant Accounting Policies

Medical University Hospital Authority (the Authority) is a multidimensional healthcare system headquartered in Charleston, South Carolina. The Authority is a principal diagnostic and treatment referral center for the state of South Carolina that owns and operates the principal clinical teaching institutions for The Medical University of South Carolina (the University). The primary facilities used by the Authority, all located on or near the Authority's main campus in Charleston, consist of the following:

- University Hospital
- Ashley River Tower (ART) Hospital
- Children's Hospital
- Storm Eye Institute
- Institute of Psychiatry
- Digestive Disease Center
- Transplant Center
- Hollings Cancer Center
- MUSC Heart and Vascular Center

Reporting Entity

The Authority is a major discretely presented component unit of the University, as defined by the provisions of Governmental Accounting Standards Board (GASB) Statement No. 61, *The Financial Reporting Entity: Omnibus*. The Authority's component unit relationship to the University arises principally because the nature and significance of the relationship is such that exclusion would cause the University's financial statements to be misleading or incomplete. In particular, the legislation establishing the Authority as a stand-alone healthcare system, effective July 1, 2000, requires that the members of the University's board of trustees also constitute the board of trustees of the Authority.

The significant accounting policies used by the Authority in preparing and presenting its financial statements are as follows:

(a) Basis of Accounting

For financial reporting purposes, the Authority is considered a special purpose government engaged only in business-type activities. Accordingly, the financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred.

(b) Cash Equivalents

The Authority considers investments in highly liquid individual debt instruments (with an original maturity of three months or less) and similar fund positions to be cash equivalents.

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Notes to Basic Financial Statements

June 30, 2017

(c) Inventories

Inventories, consisting principally of medical supplies and pharmaceuticals, are stated at the lower of cost (first-in, first-out) or replacement value and are included in other current assets in the accompanying Statement of Net Position.

(d) Investments and Investment Income

Investments are carried at fair value and consist of internally or externally restricted cash equivalents and treasury obligations with original maturities greater than three months. Fair value measurements are categorized within the fair value hierarchy established by generally accepted accounting principles (GAAP) and investment income or loss from investments (including realized and unrealized gains and losses on investments and interest) is reported as nonoperating revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

(e) Capital Assets

Capital assets are recorded at cost at the date of acquisition or, if donated, at fair value at the date of receipt. Depreciation is provided over the useful life of each class of depreciable assets using the straight-line method. Equipment under capital lease obligations is amortized using the straight-line method over the estimated useful life of the equipment or lease term, and such amortization is included in depreciation and amortization in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

A summary of depreciable lives is as follows:

Land improvements	3-25 Years
Buildings, improvements, and fixed equipment	5-50 Years
Machinery, equipment, and vehicles	2-20 Years
Software	3-5 Years

(f) Statement of Revenues, Expenses and Changes in Net Position

For purposes of presentation, transactions deemed by management to be ongoing, major or central to the provision of healthcare services are reported as operating revenues and operating expenses. Principal nonoperating transactions include state appropriations, gifts and grants, investment income, interest expense, loss on disposal of capital assets and financing costs.

(g) Net Patient Service Revenue

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered, and includes estimated retroactive revenue adjustments due to future audits, reviews, and investigations, as well as the provision for uncollectible accounts. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as

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adjustments become known or as years are no longer subject to such audits, reviews and investigations.

(h) Charity Care

The Authority provides care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. Because the Authority does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue.

(i) Net Position

Net position of the Authority is classified into the following components:

- Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by outstanding balances of any borrowings used to finance the purchase or construction of those assets.
- Restricted under indenture agreements represents resources deposited with trustees as required by bond indentures or other debt agreements.
- Restricted for capital projects and major programs represents resources that the Authority is legally or contractually obligated to spend in accordance with restrictions imposed by external parties.
- Unrestricted represents remaining net position that does not meet any of the above definitions.

When the Authority has both restricted and unrestricted resources available to finance a particular program, it is the Authority's policy to use restricted resources before unrestricted resources.

(j) Costs of Borrowing

The deferred accounting loss on refunding is being amortized over the terms of the related indebtedness using the effective-interest method. Refunding losses are classified as deferred outflows of resources on the Statement of Net Position. Costs of issuance are expensed in the period incurred.

Interest cost is capitalized on qualified construction expenditures, net of income earned on related assets, as a component of the cost of the related projects. For qualifying capital projects that are not financed with specific proceeds of tax-exempt debt, the Authority capitalizes interest cost on such projects based on accumulated expenditures and a weighted average borrowing rate.

(k) Income Taxes

The Authority is a political subdivision of the State of South Carolina and is treated as a governmental entity for tax purposes. Additionally, the Authority has received its determination letter from the Internal Revenue Service indicating that it is exempt from income tax under Section 501(a) of the Internal Revenue Code as an organization described in Section 501(c)(3). As such, the Authority is not generally subject to federal or state income taxes. However, the Authority remains subject to income taxes on any net income that is derived from a trade or business, regularly carried on and not in furtherance of the purpose for which it was granted exemption. No income tax provision has been recorded. If there is net income from any unrelated trade or business, such provision, in the opinion of management, is not material to the financial statements taken as a whole.

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(l) Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires that management make estimates and assumptions affecting the reported amounts of assets, liabilities, revenues and expenses, as well as disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Significant items subject to such estimates include the allowances for uncollectible accounts and contractual adjustments for patient receivables; depreciation and amortization; liability for incurred but not reported claims under the self-insured health plan and estimated third-party payor settlements. In particular, laws and regulations governing the Medicare and Medicaid programs are extremely complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates related to these programs will change by a material amount in the near term.

(m) Recent Accounting Pronouncements

- GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, was issued in June 2015. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). The scope of this Statement addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. This statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources and expense/expenditures. For defined-benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined-benefit OPEB also are addressed. In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined-benefit OPEB plans that are administered through trusts that meet the specified criteria and for employers whose employees are provided with defined contribution OPEB. Additional information about the Authority's participation in OPEB can be found in note 10. GASB Statement No. 75 is effective for the Authority's fiscal year 2018.
- GASB Statement No. 78, *Pensions Provided Through Certain Multiple-Employer Defined Benefit Pension Plans*, was issued in December 2015. This Statement amends the scope and applicability of Statement No. 68 to exclude pensions provided to employees of state or local governmental employers through a cost-sharing multiple employer defined-benefit pension plan that (1) is not a state or local governmental pension plan, (2) is used to provide defined-benefit pensions both to employees of state or local governmental employers and to employees of employers that are not state or local governmental employers, and (3) has no predominant state or local governmental employer (either individually or collectively with other state or local governmental employers that provide pensions through the pension plan). This statement establishes requirements for recognition and measurement of pension expense, expenditures, and liabilities; note disclosures; and required supplementary information for pensions that have the characteristics described above. GASB Statement No. 78 was effective for the Authority's fiscal year 2017 and did not have an impact as the Authority's pensions are covered by GASB Statement No. 68 (note 11).

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- GASB Statement No. 82, *Pension Issues – An Amendment of GASB Statements No. 67, No. 68 and No. 73*, was issued in March 2016. This statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. GASB Statement No. 82 was effective for the Authority's fiscal year 2017 and did not have a significant impact on reported amounts or disclosures.
- GASB Statement No. 87, *Leases*, was issued in June 2017. This statement requires recognition of certain assets/deferred outflows of resources and liabilities/deferred inflows of resources for leases previously classified as operating leases, based on the payment provisions of the contract. It establishes a single model for lease accounting based on the principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset and a lessor is required to recognize a lease receivable and a deferred inflow of resources to enhance the relevance and consistency of information about governments' leasing activities. GASB Statement No. 87 is effective for the Authority's fiscal year 2020. See note 14 for additional information about the Authority's leasing activities.

The Authority is in the process of evaluating the impact of GASB Statements No. 75 and 87 and other recent accounting pronouncements on the Authority's financial statements.

(2) Cash, Cash Equivalents and Investments

The Authority's cash balance at June 30, 2017 is as follows:

Insured (FDIC and SIPC)	\$ 1,250,000
Uninsured, uncollateralized, or collateralized by securities held by the pledging institution or by its trust department or agent in other than the Authority's name	<u>259,721,788</u>
Total	<u>\$ 260,971,788</u>
Carrying amount (cash and cash equivalents)	\$ 257,583,274

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A summary of investments at June 30, 2017 is as follows:

	<u>Fair value</u>	<u>Percentage</u>	<u>Maturities</u>	<u>Interest rate</u>	<u>Credit rating</u>
Cash	\$ 3,192,471	4.5 %	N/A	N/A	N/A
Fixed-income securities:					
Federal National Mortgage Association	28,905,649	40.5	4/24/26-12/27/27	2.1%-2.5%	AA+
Federal Home Loan Bank	10,390,008	14.5	4/25/18-10/01/18	0.9%-1.1%	Aaa
Federal Farm Credit Bank	18,912,333	26.5	8/10/26-8/17/26	2.1 %	Aaa
Freddie Mac	9,999,650	14.0	7/28/2017	1.0	Aaa
	<u>\$ 71,400,111</u>				

The Authority categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset:

- Level 1 inputs are quoted prices in active markets for identical assets.
- Level 2 inputs are significant other observable inputs.
- Level 3 inputs are significant unobservable inputs.

A summary of investments within the fair value hierarchy as of June 30, 2017 is as follows:

	<u>Investments by fair value level</u>	<u>Fair value measurements</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Fixed-income securities:				
Federal National Mortgage Association	\$ 28,905,649	—	28,905,649	—
Federal Home Loan Bank	10,390,008	—	10,390,008	—
Federal Farm Credit Bank	18,912,333	—	18,912,333	—
Freddie Mac	9,999,650	9,999,650	—	—
	<u>\$ 68,207,640</u>	<u>9,999,650</u>	<u>58,207,990</u>	<u>—</u>

The Authority's investment strategy has been developed to, among other things, ensure that the investment portfolio remains in compliance with the investments deemed permissible under the indenture agreement described in note 6. There is no formalized deposit or investment policy that otherwise addresses credit risk, interest rate risk, foreign currency risk or how investment income may be spent.

Guidelines for fixed-income investments and cash equivalents are as follows:

1. Direct obligations of the U.S. government, securities issued by federal agencies backed by the full faith and credit of the U.S. government, and securities issued by certain nonfull faith and credit federal agencies.

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2. Cash, money market funds and certificates of deposit that are appropriately collateralized, insured or issued by investment grade financial institutions.
3. Investment agreements, including guaranteed investment contracts, commercial papers, repurchase agreements and other securities are subject to credit rating minimums, acceptance by related insurers, and other provisions, as described in the indenture agreements.

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Except for restrictions imposed by the aforementioned indenture agreement, there are no limits on the amount the Authority may invest in any one issuer. As of June 30, 2017, 40.5% of the Authority's investments are in notes issued by the Federal National Mortgage Association.

Investment income comprises the following for the year ended June 30, 2017:

Dividend and interest income	\$ 1,386,568
Realized and unrealized gain on investments	<u>(2,826,094)</u>
	<u>\$ (1,439,526)</u>

(3) Other Current Assets

The composition of other current assets at June 30, 2017 is as follows:

Prepaid expenses	\$ 14,768,247
Inventories	28,236,588
Amounts due from the South Carolina Medicaid Disproportionate Share Hospital program (note 8)	1,815,676
Amounts due from the South Carolina Medicaid HMO Graduate Medical Education program	10,720,964
Other	<u>14,078</u>
	<u>\$ 55,555,553</u>

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(4) Capital Assets

Capital assets and related activity for the year ended June 30, 2017 consisted of the following:

	Beginning balance	Increases	Decreases	Ending balance
Capital assets not being depreciated:				
Land	\$ 6,092,725	—	—	6,092,725
Assets not in service	1,773,997	5,947,891	(4,297,558)	3,424,330
Construction in progress	23,317,787	91,178,911	(6,446,041)	108,050,657
Total capital assets not being depreciated	31,184,509	97,126,802	(10,743,599)	117,567,712
Capital assets being depreciated:				
Buildings, improvements and fixed equipment	742,463,415	6,746,022	(34,545,828)	714,663,609
Machinery and equipment	260,610,299	18,465,965	(19,813,173)	259,263,091
Software	51,232,070	494,584	—	51,726,654
Vehicles	2,123,266	35,069	(55,375)	2,102,960
Total capital assets being depreciated	1,056,429,050	25,741,640	(54,414,376)	1,027,756,314
	Beginning balance	Increases	Decreases	Ending balance
Less accumulated depreciation for:				
Buildings, improvements and fixed equipment	\$ (373,206,323)	(34,152,210)	33,574,822	(373,783,711)
Machinery and equipment	(175,247,889)	(22,563,164)	19,236,557	(178,574,496)
Software	(24,785,678)	(9,515,566)	—	(34,301,244)
Vehicles	(1,857,383)	(125,256)	55,375	(1,927,264)
Total accumulated depreciation	(575,097,273)	(66,356,196)	52,866,754	(588,586,715)
Capital assets being depreciated, net	481,331,777	(40,614,556)	(1,547,622)	439,169,599
Capital assets, net	\$ 512,516,286	56,512,246	(12,291,221)	556,737,311

Construction in progress at June 30, 2017 consists of costs associated with various renovation projects in process at existing hospital facilities, leased properties and costs for the new CHWP. Construction in progress projects are generally scheduled for completion in fiscal year 2018, with CHWP scheduled for completion in fiscal year 2019. Remaining costs to complete these projects are estimated to total approximately \$288.6 million and include estimated costs for construction of CHWP. Included in the table of capital assets is a transfer of certain assets from the Medical University of South Carolina with a depreciation balance of \$0.09 million.

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Interest cost capitalized on qualifying assets was approximately \$1 million for the year ended June 30, 2017.

(5) Deferred Outflows

The composition of deferred outflows at June 30, 2017 is as follows:

Deferred loss on refunding GNMA MBS Series 2012	\$ 27,232,518
Deferred loss on refunding CEP Series 2013	1,572,804
Pension plans	<u>132,999,636</u>
Total	<u>\$ 161,804,958</u>

(6) Long-Term Debt

A summary of long-term debt at June 30, 2017 is as follows:

GNMA MBS, 2012 Refinancing of Series 2004 Bonds, Series 2012, payable in varying amounts through 2033, with monthly interest payments at the rate of 2.94%	\$ 299,592,013
MUHA Central Energy Plant, 2013 Refinancing of MUFC Central Energy Plant, LLC Economic Development Revenue Bonds, Series 2013, payable in varying amounts through 2032, with monthly interest payments at the rate of 3.85%	40,592,349
Note Payable to Wells Fargo Bank, for conservation equipment, payable in varying amounts through March 2023, with quarterly interest payments at the rate of 3.50%	8,465,765
GNMA MBS – FHA Insured Mortgage Acquisition Obligation, Series 2016, payable in varying amounts through 2044, with monthly interest payments at the rate of 3.59%	<u>44,529,222</u>
	393,179,349
Less current installments	<u>18,426,939</u>
	<u>\$ 374,752,410</u>

In December 2004, the Authority issued a total of \$422.1 million of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004) at a premium of \$11.4 million. The net bond proceeds as well as monies from the Series 2002A Hospital Facilities Refunding Revenue Bonds (2002A Refunding Bonds) trusteed account were used to defease all amounts outstanding under the prior Series 2002A bonds and a promissory note payable to Charleston County, and fund construction of new replacement hospital facilities located in Charleston, South Carolina.

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The 2004 refunding transaction resulted in an accounting loss totaling approximately \$15.5million, which has been deferred and is being amortized using the effective-interest method through 2032. The deferred loss is related entirely to the in-substance defeasance of bonds payable.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61.0million of Economic Development Revenue Bonds, Central Energy Plant (CEP) Series 2004 for the benefit of the Authority. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a loan agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square-foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156bed Phase I Authority project. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the bonds. On March 15, 2007, the construction of the Central Energy Plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59.4million bonds into Indexed Floating Rate Bonds to reduce cost of capital and annual debt service payments.

On December 19, 2012, the Authority refinanced the 2004 Series bonds with Government National Mortgage Agency (GNMA) mortgage-backed securities (MBS) (Series 2012). The refinance was done to substantially lower the Authority's interest rate from 5.18% and 5.14% on the 2004 Series bonds in fiscal year 2013 to a 2.94% fixed rate on the Series 2012. At the time of refinancing, the long-term debt obligation was reduced by debt service reserve and other funds, which became available to make additional principal payments. The net proceeds of \$360.4 million (after payment of \$1.1 million of issuance costs plus an additional \$49.9 million of 2004 Series debt service fund monies), were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2004 Series bonds. The advance refunding of the 2004 Series bonds resulted in an economic gain of \$1.0 million along with reducing total debt service payments over the next 20 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations an additional indebtedness. The amount of debt related to the advanced refunding related to the 2004 Series A bonds is \$488.5 million through 2034 and \$35.9 million through 2020 for the 2004 Series B bonds.

In April 2013, the Authority entered into a \$13.8 million equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. The terms are 10 years with an interest rate of 3.50%. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

On December 30, 2013, the Authority refinanced the 2004 MUFC Central Energy Plant, LLC Economic Development Revenue Bonds (CEP Series 2004 bonds) with GNMA MBS (Series 2013). The refinance was done to lower the Authority's effective interest rate from 5.75% on the 2004 Series to a 3.85% fixed rate on the Series 2013. The net proceeds of \$47.4 million (after payment of \$1.3 million of issuance costs) were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the CEP Series 2004 bonds. As a result, the CEP Series 2004 bonds are considered to be

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deceased, and the liability for those bonds were removed from the Statement of Net Position. The advance refunding of the CEP Series 2004 bonds resulted in an economic gain of \$2.4 million along with reducing total debt service payments over the next 18 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations on additional indebtedness.

On November 17, 2016, the Authority closed on a \$316.4 million mortgage insured by U.S. Department of Housing and Urban Development (HUD) through the Federal Housing Administration's (FHA) Section 242 Hospital Mortgage Insurance Program. The principal amount of the mortgage will bear interest at 3.59% and will be amortized over 25 years. The proceeds of this financing are being used for the purpose of (i) defraying and financing a portion of the costs of construction of the MUSC CHWP and other healthcare and related facilities of the Authority; and (ii) defraying and financing the costs associated with the incurrence of the mortgage indebtedness. The total project has an estimated cost of \$384.8 million, with an equity contribution by the Authority of \$68.4 million that included State funding and fund-raising in hand at closing. During fiscal year 2017, the Authority received \$44.5 million in net mortgage proceeds (after payment of \$5.2 million in issuance costs) and made monthly payments of interest only, at a rate of 3.59%, on the principal balance. The first principal payment will be due after CHWP opens, which is expected in the fall of 2019.

Debt service requirements associated with the Authority's outstanding bonds are as follows:

	Series 2013		Series 2012		Series 2016		Total
	Principal	Interest	Principal	Interest	Principal	Interest	
Fiscal year:							
2018	\$ 2,180,949	1,524,588	14,886,549	8,608,472	—	—	27,200,558
2019	2,266,413	1,439,124	15,330,159	8,164,862	—	—	27,200,558
2020	2,355,226	1,350,311	15,786,989	7,708,032	7,288,255	10,303,736	44,792,549
2021	2,447,520	1,258,017	16,257,432	7,237,589	8,228,773	10,962,490	46,391,821
2022	2,543,430	1,162,107	16,741,894	6,753,127	8,529,096	10,662,167	46,391,821
2023	2,643,099	1,062,438	17,240,793	6,254,228	8,840,379	10,350,884	46,391,821
2024	2,746,673	958,864	17,754,558	5,740,463	9,163,023	10,028,240	46,391,821
2025	2,854,306	851,231	18,283,634	5,211,387	2,479,696	2,318,120	31,998,374
2026	2,966,157	739,380	18,828,475	4,666,546	—	—	27,200,558
2027	3,082,390	623,146	19,389,553	4,105,469	—	—	27,200,558
2028	3,203,179	502,358	19,967,351	3,527,670	—	—	27,200,558
2029	3,328,701	376,836	20,562,366	2,932,655	—	—	27,200,558
2030	3,459,142	246,395	21,175,112	2,319,909	—	—	27,200,558
2031	3,594,694	110,843	21,806,119	1,688,902	—	—	27,200,558
2032	920,470	5,911	22,455,928	1,039,093	—	—	24,421,402
2033	—	—	23,125,101	369,915	—	—	23,495,016
Total	\$ 40,592,349	12,211,549	299,592,013	76,328,319	44,529,222	54,625,637	527,879,089

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Debt service requirements associated with the Authority's note payable are as follows:

Fiscal year:	Wells Fargo		Total
	Principal	Interest	
2018	\$ 1,359,441	278,589	1,638,030
2019	1,407,650	230,380	1,638,030
2020	1,457,568	180,462	1,638,030
2021	1,509,257	128,773	1,638,030
2022	1,562,778	75,252	1,638,030
2023	1,169,071	20,177	1,189,248
Total	\$ 8,465,765	913,633	9,379,398

A schedule of changes in the Authority's long-term debt and capital lease obligations for the year ended June 30, 2017 is as follows:

	Date of issuance	Beginning balance	Additions	Refunded and/or retired	Ending balance	Due within one year
Capital leases (note 14)	Various	\$ 14,266,959	2,225,006	(3,811,988)	12,679,977	3,833,459
Series 2012	12/19/2012	314,047,788	—	(14,455,775)	299,592,013	14,886,549
Wells Fargo	4/25/2013	9,778,649	—	(1,312,884)	8,465,765	1,359,441
Series 2013	12/30/2013	42,691,056	—	(2,098,707)	40,592,349	2,180,949
Series 2016	11/17/2016	—	44,529,222	—	44,529,222	—
		\$ 380,784,452	46,754,228	(21,679,354)	405,859,326	22,260,398

(7) Other Accrued Expenses:

The composition of other accrued expenses at June 30, 2017 is as follows:

Accrued interest	\$ 877,671
Amounts due to contractors	363,466
Amounts due to South Carolina Medicaid	
Disproportionate Share Hospital Program and other settlements (note 8)	11,218,163
Other	2,056,349
	\$ 14,515,649

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(8) Net Patient Service Revenue

The Authority has agreements with governmental and other third-party payors that provide for reimbursement to the Authority at amounts different from its established rates. Contractual adjustments under third-party reimbursement programs represent the difference between the Authority's billings at established rates for services and amounts reimbursed by third-party payors. A summary of the basis of reimbursement with major third-party payors is as follows:

- Medicare – Substantially all inpatient acute care and outpatient services rendered to Medicare program beneficiaries are paid at prospectively determined rates. These rates vary according to patient classification systems that are based on clinical, diagnostic and other factors. Additionally, the Authority is reimbursed for both its direct and indirect medical education costs, based principally on per-resident prospective payment amounts and certain adjustments to prospective rate-per-discharge operating reimbursement payments. The Authority generally is reimbursed for retroactively determined items at tentative rates, with final settlement determined after submission of annual cost reports by the Authority and audits by the Medicare fiscal intermediary. The Authority's cost reports have been audited and initially settled for all fiscal years through 2010.

Revenue from the Medicare program accounted for approximately 30.9% of the Authority's net patient service revenue for the fiscal year ended June 30, 2017.

- Medicaid – Inpatient and outpatient services rendered to most Medicaid program beneficiaries are reimbursed based upon prospective reimbursement methodologies.

The Authority participates in the Medicaid Disproportionate Share Hospital program (the DSH Program) available to certain qualifying hospitals in South Carolina. The net reimbursement benefits associated with this program totaled approximately \$29.7 million in fiscal year 2017 and are recognized as reductions in related contractual adjustments in net patient service revenue on the Statement of Revenues, Expenses and Changes in Net Position. There can be no assurance that the Authority will continue to qualify for future participation in this program or that the program will not ultimately be discontinued or materially modified. Any material reduction in such funds has a corresponding material adverse effect on the Authority's operations.

During the Authority's fiscal year 2008, the state of South Carolina reconfigured certain terms and conditions of the DSH Program for participating providers, including the Authority. Because of associated funding deferrals and other changes which impacted the timing of historical net revenue and cash flows to the Authority under the program, the Authority recognized a receivable totaling approximately \$1.8 million at June 30, 2017, in recognition of program net revenue earned but not received in fiscal year 2017.

In fiscal year 2017, the Medicaid fiscal intermediary performed a cost settlement of the DSH program funding provided to the Authority in year 2013. The cost settlement identified an overpayment of \$10.6 million and the Authority recorded that amount as a payable and related incremental contractual adjustment during fiscal year 2017.

In fiscal year 2017, the Authority received notice from the Medicaid fiscal intermediary of a retrospective cost settlement related to the Medicaid program funding for fiscal year 2012. The

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Authority recognized an associated accrual for Medicaid overpayment totaling approximately \$0.5 million.

Overall, revenue from the Medicaid program, including net disproportionate share funding and cost settlement liabilities described above, accounted for approximately 21% of the Authority's net patient service revenue for the year ended June 30, 2017.

The Authority has also entered into payment arrangements with various managed care organizations, commercial insurance carriers and preferred provider organizations. Payment methodologies under these agreements include prospectively determined rates per discharge, discounts from established rates and prospectively determined per diem rates.

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered. Associated estimates change as a result of confirming events such as completion of audits of the Authority's cost reports by third-party payors or receipt of final settlement payments from third-party payors. Net patient service revenue was decreased by approximately \$2.80 million for changes in prior year estimates of amounts receivable from or payable to third-party payors during the year ended June 30, 2017.

The composition of net patient service revenue for the year ended June 30, 2017 is as follows:

Gross patient service revenue	\$ 3,964,351,286
Less:	
Provision for contractual and other adjustments	2,511,168,147
Provision for uncollectible accounts	<u>83,116,441</u>
Net patient service revenue	<u>\$ 1,370,066,698</u>

The Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted as part of the American Recovery and Reinvestment Act of 2009 and signed into law in February 2009. In the context of the HITECH Act, the Authority must implement a certified Electronic Health Record (EHR) system in an effort to promote the adoption and "meaningful use" of health information technology. The HITECH Act includes significant monetary incentives and payment penalties meant to encourage the adoption of EHR technology. The Authority implemented a certified Electronic Health Record (EHR) system as of July 1, 2014 enabling its compliance with the meaningful use objectives mandated in the HITECH legislation. The Authority collected \$584 thousand in fiscal year 2017 in incentive payments under the South Carolina Medicaid EHR incentive payment program related to its efforts at implementing certified EHR technology. The incentive payment is included in other revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

(9) Service to the Community

The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Board of Trustees has established policies under which the Authority provides care to needy members of its communities. These policies include

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discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$147.7 million (as measured by established charges) were provided without charge (and thus not recognized in gross patient service revenue) during fiscal year 2017.

The Authority also participates in the Medicare and Medicaid programs. Under these programs, the Authority provides care to patients at payment rates that are determined by the federal and state governments, regardless of actual cost. The Authority wrote off discounts from established charges related to these programs totaling approximately \$1.7 billion in fiscal year 2017.

In addition to community service directly associated with providing Authority-based care, the Authority serves the community in other ways. For example:

- In keeping with the MUSC mission to improve health and maximize quality of life through education, research and patient care, the MUSC Urban Farm was developed, a half-acre educational garden with the goal of creating opportunities for our community to learn how to eat for health. The urban farm is designed to be a living classroom where students, faculty, staff and the community come together to explore the connection between food and health through hands-on learning about the many varieties of vegetables, fruits and herbs grown in South Carolina. Participants experience a unique opportunity to engage in hands-on learning about sustainable urban agriculture and are educated on the value of incorporating vegetables into their diets through cooking and nutrition lessons. The urban farm is a joint program between the Authority and the University and there were 168 classes in fiscal year 2017.
- In 2015, the Authority and Sodexo partnered to address food insecurity and the rising cost of healthcare to become the first hospital in the southeast to offer the USDA's summer food service program, Kids Eat Free. The program operates in three cafeterias on the main campus – seven days a week at the University and Ashley River Tower (ART) cafeterias and five days a week at Rutledge Tower cafeteria. In fiscal year 2017, 5,143 children participated in the Kids Eat Free program.

The Authority and East Cooper Meals on Wheels (ECMOW) partnered to create the Blue Apron program, where physicians and case managers refer patients who are not able to shop or prepare meals for themselves to ECMOW for free meal delivery. This program addresses food insecurity and contributes to better health outcomes and fewer hospital readmissions. In fiscal year 2017, 123 patients participated in the Blue Apron program and received 1,095 meal deliveries.

- The Authority and the University, in partnership with the city of Charleston, created the Adventure Out program to encourage community members to adopt a physically active lifestyle. This program is an outdoor fitness campaign that encourages residents to visit parks throughout the city where MUSC fitness instructors teach a free exercise class each week. In fiscal year 2017, there were 43 free exercise classes taught via the Adventure Out program.

A fitness park was installed on campus next to the MUSC Urban Farm where a community walk is hosted along the medical-mile walking trail. This walking trail is designated in the smoke free medical district and was created in partnership with the city of Charleston. In fiscal year 2017, there were 120 participants in the medical mile community walk.

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- The Authority, in conjunction with the University, also organizes employee participation in the Trident United Way. In fiscal year 2017, Authority and University employees pledged over \$55,000 to help support this organization.

While the Authority has estimated the cost of many of its community efforts to serve its broadly defined service area, management and the board of trustees believe that such costs represent only one facet of the many ways the Authority serves the citizens of South Carolina.

(10) Employee Benefit Plans

The Authority participates in a number of employee benefit plans sponsored by the state of South Carolina, and substantially all of the Authority's employees are covered by such plans. The following generally describes the benefits associated with the most significant plans and the Authority's relevant participation:

- The Authority and substantially all of its employees contribute to the South Carolina Retirement System (SCRS), which sponsors a cost-sharing, multiple-employer defined-benefit pension plan. SCRS provides retirement, disability and other insurance benefits to plan members and beneficiaries. For more details on the SCRS plan, see note 11. SCRS issues a publicly available financial report that includes financial statements and required supplementary information, which can be obtained by writing SCRS's Retirement Division at 202 Arbor Lake Drive, Columbia, South Carolina 29223 or by calling (803)737-6800.
- SCRS participants are required to contribute 8.66% of their annual covered salary to the plan and the Authority contributes at an actuarially determined rate (currently 16.89% of annual covered payroll). The Authority contributed approximately \$48.6 million (11.56% statutorily required contribution plus 5.33% retiree insurance surcharge) to SCRS during fiscal year 2017, equal to the required contributions. The Authority has no other liability under this plan other than to make its required contributions, which are fully funded through June 30, 2017. Effective July 1, 2017, the employee contribution rate increases from 8.66% to 9.00%, and the employer contribution rate increases from 16.89% to 19.06%.
- The Authority's SCRS funding described above also funds the "pay-as-you-go" component of certain postretirement insurance benefits provided by the SCRS plan. The actual cost of providing such benefits to Authority retirees is not available. Nevertheless, as noted above, the Authority has no explicit liability associated with the postretirement health and life benefits component of the plan beyond its fully funded contributions obligation.
- Authority employees are eligible to participate in a state-sponsored multiemployer deferred compensation plan (SC Deferred Compensation Program), which provides for individual employee contributory trust accounts. The Authority does not contribute to this plan and has no liability associated with employee amounts deferred under the plan.

Effective July 1, 2002, the Authority established and began sponsoring a profit sharing plan and trust titled the Special Healthcare Alternative Retirement Plan (SHARP). The Sharp is qualified under Section 401(a) of the Internal Revenue Code. Certain employees, as defined in SHARP, are eligible to participate at the commencement of employment. Contributions by the Authority to SHARP are discretionary and vest ratably over four years after two years of service. Contributions by the Authority in fiscal year 2017 totaled approximately \$999.7 thousand.

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The Authority also independently sponsors a tax-advantaged defined-contribution plan for its employees (the MUSC 403B plan). Substantially all Authority employees are eligible to participate in this plan. Employees may contribute up to \$24 thousand of eligible compensation. The Authority does not match employee contributions.

(11) Pension Plans

The South Carolina Public Employee Benefit Authority (PEBA), which was created July 1, 2012, administers the various retirement systems and retirement programs managed by its Retirement Division. PEBA has an 11-member board of directors, appointed by the governor and general assembly leadership, which serves as cotrustee and fiduciary of the systems and the trust funds. By law, the State Fiscal Accountability Authority (SFAA), which consists of five elected officials, also reviews certain PEBA board decisions regarding the funding of the South Carolina Retirement Systems (Systems) and serves as a cotrustee of the Systems in conducting that review.

For purposes of measuring the net pension liability, deferred outflows and inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Systems and additions to/deductions from the Systems fiduciary net position have been determined on the accrual basis of accounting as they are reported by the Systems in accordance with GAAP. For this purpose, revenues are recognized when earned, and expenses are recognized when incurred. Benefit and refund expenses are recognized when due and payable in accordance with the terms of the plan. Investments are reported at fair value.

PEBA issues a Comprehensive Annual Financial Report (CAFR) containing financial statements and required supplementary information for the Systems' Pension Trust Funds. The CAFR is publicly available through the Retirement Benefits' link on PEBA's web site at peba.sc.gov, or a copy may be obtained by submitting a request to PEBA, 202 Arbor Lake Drive, Columbia, SC 29223. PEBA is considered a division of the primary government of the state of South Carolina and, therefore, retirement trust fund financial information is also included in the comprehensive annual financial report of the state.

(a) Plan Description

The South Carolina Retirement System (SCRS), a cost-sharing multiple-employer defined-benefit pension plan, was established effective July 1, 1945, pursuant to the provisions of Section 9-1-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for employees of the state, its public school districts, and political subdivisions.

The State Optional Retirement Program (ORP) is a defined-contribution plan that is offered as an alternative to SCRS to certain newly hired state, public school, and higher education employees. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers.

The South Carolina Police Officers Retirement System (PORS), a cost-sharing multiple-employer defined-benefit pension plan, was established effective July 1, 1962, pursuant to the provisions of Section 9-11-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for police officers and firemen of the state and its political subdivisions.

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(b) Membership

Membership requirements are prescribed in Title 9 of the South Carolina Code of Laws. A brief summary of the requirements under each system is presented below.

- **SCRS** – Generally, all employees of covered employers are required to participate in and contribute to the system as a condition of employment. This plan covers general employees and teachers and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election. An employee member of the system with an effective date of membership prior to July 1, 2012, is a class two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a class three member.
- **State ORP** – As an alternative to membership in SCRS, newly hired state, public school, and higher education employees and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election have the option to participate in State ORP. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers. PEBA assumes no liability for State ORP benefits. Rather, the benefits are the liability of the investment providers. For this reason, State ORP programs are not part of the retirement systems' trust funds for financial statement purposes. Employee and employer contributions to State ORP are at the same rates as SCRS. A direct remittance is required from the employers to the member's account with investment providers for the employee contribution and a portion of the employer contribution (5%). A direct remittance is also required to SCRS for the remaining portion of the employer contribution and an incidental death benefit contribution, if applicable, which is retained by SCRS.
- **PORS** – To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; or to serve as a peace officer employed by the Department of Corrections, the Department of Juvenile Justice, or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute. An employee member of the system with an effective date of membership prior to July 1, 2012, is a class two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a class three member.

(c) Benefits

Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a legislative change in the code of laws. Key elements of the benefit calculation include the benefit multiplier, years of service, and average final compensation. A brief summary of the benefit terms for each system is presented below:

- **SCRS** – A class two member who has separated from service with at least 5 or more years of earned service is eligible for a monthly pension at age 65 or with 28 years credited service regardless of age. A member may elect early retirement with reduced pension benefits payable at age 55 with 25 years of service credit. A class three member who has separated from service with

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at least 8 or more years of earned service is eligible for a monthly pension upon satisfying the Rule of 90 requirement that the total of the member's age and the member's creditable service equals at least 90 years. Both class two and class three members are eligible to receive a reduced deferred annuity at age 60 if they satisfy the 5- or 8-year earned service requirement, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program.

The annual retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of 1% or \$500 every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase. Members who retire under the early retirement provisions at age 55 with 25 years of service are not eligible for the benefit adjustment until the second July 1 after reaching age 60 or the second July 1 after the date they would have had 28 years of service credit had they not retired.

- **PORS** – A class two member who has separated from service with at least 5 or more years of earned service is eligible for a monthly pension at age 55 or with 25 years of service regardless of age. A class three member who has separated from service with at least 8 or more years of earned service is eligible for a monthly pension at age 55 or with 27 years of service regardless of age. Both class two and class three members are eligible to receive a deferred annuity at age 55 with 5 or 8 years of earned service, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program. Accidental death benefits are also provided upon the death of an active member working for a covered employer whose death was a natural and proximate result of an injury incurred while in the performance of duty.

The retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of 1% or \$500 every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase.

(d) Contributions

Contributions are prescribed in Title 9 of the South Carolina Code of Laws. Upon recommendation by the actuary in the annual actuarial valuation, the PEBA Board may adopt and present to the SFAA for approval an increase in the SCRS and PORS employer and employee contribution rates, but any such increase may not result in a differential between the employee and total employer contribution rate that exceeds 2.9% of earnable compensation for SCRS and 5% for PORS. An increase in the contribution rates adopted by the Board may not provide for an increase of more than one-half of 1% in any 1 year. If the scheduled employee and employer contributions provided in statute or the rates last adopted by the board are insufficient to maintain a 30-year amortization schedule of the unfunded liabilities of the plans, the board shall increase the contribution rates in equal percentage amounts for the employer and employee as necessary to maintain the 30-year amortization period; and, this increase is not limited to one-half of 1% per year.

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- Required employee contribution rates¹ for fiscal year 2017 are as follows:

SCRS:	
Employee class two	8.66 %
Employee class three	8.66
State ORP	8.66 %
PORS:	
Employee class two	9.24 %
Employee class three	9.24

- Required employer contribution rates¹ for fiscal year 2017 are as follows:

SCRS:	
Employer class two	11.41 %
Employer class three	11.41
Employer incidental death benefit	0.15
State ORP:	
Employer contribution ²	11.41 %
Employer incidental death benefit	0.15
PORS:	
Employer class two	13.84 %
Employer class three	13.84
Employer incidental death benefit	0.20
Employer accidental death program	0.20

¹ Calculated on earnable compensation as defined in Title 9 of the South Carolina Code of Laws.

² Of this employer contribution, 5% of earnable compensation must be remitted by the employer directly to the ORP vendor to be allocated to the member's account with the remainder of the employer contribution remitted to SCRS.

(e) Allocation of Pension Amounts

The Authority's proportionate share of pension amounts was calculated on the basis of historical employer contributions. Although GASB Statement No. 68 encourages the use of the employer's projected long-term contribution effort to the retirement plan, allocating on the basis of historical employer contributions is considered acceptable. Employer contributions recognized by the Systems that are not representative of future contribution effort are excluded in the determination of employers proportionate shares. Examples of employer contributions not representative of future contribution efforts are contributions towards the purchase of employee service and employer contributions paid by employees in connection with early retirement.

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The following table provides the employer contributions used in the determination of employers proportionate shares of collective pension amounts reported in the Schedule of Employer Allocations.

	<u>SCRS</u>	<u>PORS</u>
The Authority's proportionate share of contributions for the fiscal year ended June 30, 2016	\$ 37,175,029	376,835
The Authority's allocation percentage of proportionate shares of collective pension amounts – June 30, 2016 measurement date	3.471014 %	0.215130 %

(f) Net Pension Liability

The net pension liability (NPL) is calculated separately for each system and represents that particular system's total pension liability determined in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25*, less that System's fiduciary net position. NPL totals, as of June 30, 2016, for SCRS and PORS and the Authority's proportionate share are presented below.

<u>System</u>	<u>Total pension liability</u>	<u>Plan fiduciary net position</u>	<u>Collective net pension liability (asset)</u>	<u>The Authority's portion of collective net pension liability</u>	<u>The Authority's proportioned share of net pension liability</u>
SCRS	\$ 45,356,214,752	23,996,362,354	21,359,852,398	3.471014%	\$ 741,403,467
PORS	6,412,510,458	3,876,035,732	2,536,474,726	0.215130	5,456,693

For the year ended June 30, 2017, the Authority recognized pension expense of \$74,063,665 and \$569,002 related to the SCRS and PORS pension plans, respectively.

(g) Actuarial Assumptions and Methods

Actuarial valuations involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Actuarial assumptions and methods used during the annual valuation process are subject to periodic revision, typically with an experience study, as actual results over an extended period of time are compared with past expectations and new estimates are made about the future.

South Carolina state statute requires that an actuarial experience study be completed at least once in each five-year period. An experience report on the Systems was most recently issued as of July 1, 2015. The June 30, 2016, total pension liability, net pension liability and sensitivity information were determined by the Systems consulting actuary, Gabriel, Roeder, Smith and Company (GRS) and are based on the July 1, 2015, actuarial valuations, as adopted by the PEBA Board and SFAA which utilized membership data as of July 1, 2015. The total pension liability was rolled forward from the valuation date to the Systems' fiscal year ended June 30, 2016, using generally accepted actuarial

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principles. Information included in the following schedules is based on the certification provided by GRS.

The following provides a summary of the actuarial assumptions and methods used in the July 1, 2015 valuations for SCRS and PORS.

	<u>SCRS</u>	<u>PORS</u>
Actuarial cost method	Entry age normal	Entry age normal
Actuarial assumptions:		
Investment rate of return ¹	7.50 %	7.50 %
Projected salary increases	3.50% to 12.50% (varies by service) ¹	4.0% to 10.0% (varies by service) ¹
Benefit adjustments	Lesser of 1% or \$500 annually	Lesser of 1% or \$500 annually

¹ Includes inflation at 2.75%

The post retiree mortality assumption is dependent upon the member's job category and gender. This assumption includes base rates which are automatically adjusted for future improvement in mortality using published Scale AA projected from the year 2000. Assumptions used in the July 1, 2015, valuations for SCRS and PORS are as follows.

<u>Former job class</u>	<u>Males</u>	<u>Females</u>
Educators	RP-2000 males (with white collar adjustment) multiplied by 110%	RP-2000 females (with white collar adjustment) multiplied by 95%
General employees and members of the general assembly	RP-2000 males multiplied by 100%	RP-2000 females multiplied by 90%
Public safety and firefighters	RP-2000 males (with blue collar adjustment) multiplied by 115%	RP-2000 females (with blue collar adjustment) multiplied by 115%

(h) Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments, as used in the July 1, 2015, actuarial valuations, was based upon the 30-year capital markets outlook at the end of the third quarter 2015. The long term expected rate of returns represent assumptions developed using an arithmetic building block approach primarily based on consensus expectations and market-based inputs. Expected returns are net of investment fees.

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The expected returns, along with the expected inflation rate, form the basis for the revised target asset allocation adopted beginning January 1, 2016. The long-term expected rate of return is produced by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation and is summarized in the table below. For actuarial purposes, the 7.50% assumed annual investment rate of return used in the calculation of the total pension liability includes a 4.75% real rate of return and a 2.75% inflation component.

Asset class	Target asset allocation (%)	Expected arithmetic real rate of return (%)	Long term expected portfolio real rate of return (%)
Global equity:			
Global public equity	34.0 %	6.52 %	2.22 %
Private equity	9.0	9.30	0.84
Real assets:			
Real estate	5.0	4.32	0.22
Commodities	3.0	4.53	0.13
Opportunistic:			
GTAA/Risk parity	10.0	3.90	0.39
HF(Low beta)	10.0	3.87	0.39
Diversified credit:			
Mixed credit	5.0	3.52	0.17
Emerging markets debt	5.0	4.91	0.25
Private debt	7.0	4.47	0.31
Conservative fixed income:			
Core fixed income	10.0	1.72	0.17
Cash and short duration (net)	2.0	0.71	0.01
Total expected real return	100.0 %		5.10
Inflation for actuarial purposes			2.75
Total expected nominal return			7.85 %

(i) Discount Rate

The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that the funding policy specified in the South Carolina State Code of Laws will remain unchanged in future years. Based on those assumptions, each System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan

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investments was applied to all periods of projected benefit payments to determine the total pension liability.

(j) Sensitivity Analysis

The following table presents the sensitivity of the Authority's net pension liability calculated using the discount rate of 7.50%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.50%) or 1.00% higher (8.50%) than the current rate

The Authority's Sensitivity of the Net Pension Liability to Changes in the Discount Rate			
	1.00% Decrease (6.50%)	Current discount rate (7.50%)	1.00% Increase (8.50%)
SCRS	\$ 924,880,524	741,403,467	588,665,730
PORS	7,151,463	5,456,693	3,933,624

(k) Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

Deferred outflows of resources were related to differences between expected and actual experience and contributions made after the measurement date. Deferred inflows of resources were related to differences between projected and actual investment earnings. At June 30, 2017, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred outflows of resources	Deferred inflows of resources
Net differences between expected and actual experience:		
SCRS	\$ 7,685,518	805,167
PORS	80,967	—
Changes of assumption:		
SCRS	—	—
PORS	—	—

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	<u>Deferred outflows of resources</u>	<u>Deferred inflows of resources</u>
Net difference between projected and actual earnings on pension plan investments:		
SCRS	\$ 62,375,854	—
PORS	618,744	—
Changes in proportionate share and differences between employer contributions and proportionate share of total plan employer contributions:		
SCRS	21,431,373	—
PORS	—	73,068
The Authority's contributions subsequent to the measurement date:		
SCRS	40,427,071	—
PORS	380,109	—
Total	\$ <u>132,999,636</u>	<u>73,068</u>

Approximately \$40.8 million reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

	<u>SCRS</u>	<u>PORS</u>
Year ended June 30:		
2017	\$ 25,246,897	137,120
2018	21,229,628	133,016
2019	29,697,107	227,505
2020	14,513,946	129,002
Net balance of deferred outflows of resources:	\$ <u>90,687,578</u>	<u>626,643</u>

(f) Pension Plan Fiduciary Net Position

Detailed information regarding the fiduciary net position of the plans administered by PEBA is available in the separately issued CAFR containing financial statements and required supplementary information for SCRS and PORS. The CAFR of the Pension Trust Funds is publicly available on PEBA's Retirement Benefits web site at peba.sc.gov, or a copy may be obtained by submitting a request to PEBA, 202 Arbor Lake Drive, Columbia, SC 29223.

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(12) Business and Credit Concentrations

The Authority provides healthcare services through its inpatient and outpatient care facilities principally located in and around Charleston, South Carolina. The Authority grants credit to patients, substantially all of whom are residents of its service area. The Authority generally does not require collateral or other security in extending credit to patients; however, it routinely obtains assignment of (or is otherwise entitled to receive) patients' benefits payable under their health insurance programs, plans or policies (e.g., Medicare, Medicaid, Blue Cross and commercial insurance policies).

The mix of receivables from patients and third-party payors as of June 30, 2017 is as follows:

Blue Cross	\$	18 %
Medicare		26
Medicaid		23
Private insurance/managed care		17
Medically indigent/self pay/other		16
	\$	<u>100 %</u>

(13) Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; business interruption; errors and omissions; employee injuries and illness; natural disasters; and professional and general liability claims and judgments. The Authority participates in the South Carolina Insurance Reserve Fund (IRF), which provides coverage for substantially all such risks. The Authority pays premiums to the IRF and effectively receives unlimited occurrence-based coverage for all consequential risks of loss (when combined with related recovery limit protections provided by state statutes). There was no change in coverage during the year ended June 30, 2017.

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(14) Leases

The Authority has entered into capital lease agreements for the purpose of financing certain equipment acquisitions expiring in various years through 2024. Future minimum lease payments due under capital leases, by year and in the aggregate, follow:

2018	\$ 4,242,070
2019	3,595,100
2020	1,843,181
2021	1,491,335
2022	981,176
Thereafter	<u>1,716,839</u>
	13,869,701
Less interest at rates from 1.95% to 4.83%	<u>1,189,724</u>
Present value of future minimum lease payments	12,679,977
Less current installments	<u>3,833,459</u>
Capital lease obligations, excluding current installments	<u>\$ 8,846,518</u>

The Authority also enters into operating leases for various capital assets expiring in various years through 2039. Future minimum lease payments due under noncancelable operating lease agreements with third parties are as follows:

2018	\$ 16,997,369
2019	12,377,003
2020	8,685,333
2021	6,658,412
2022	5,257,793
2023-2027	10,748,853
2028-2032	1,954,571
2033-2037	704,115
2038-2039	<u>352,058</u>
	<u>\$ 63,735,507</u>

Rental expense for all operating leases was approximately \$20.4 million in fiscal year 2017 and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position. Management expects that most lease agreements will be replaced, as they expire, with similar agreements.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Notes to Basic Financial Statements

June 30, 2017

(15) Related Party Transactions

The following describes the Authority's material agreements with related parties:

(a) The University

Under the terms of various agreements related to the Authority's establishment as a distinct healthcare system, the University provides a variety of shared services for the Authority, including facilities oversight, administrative and financial services and other types of general operating support. The Authority also leases certain facilities space from the University under the Reciprocal Space Agreement. The cost of these services and leases totaled approximately \$67.0 million for fiscal year 2017, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority also reimburses the University for certain professional clinical services provided by interns and residents receiving medical education at the University. The cost of these services totaled approximately \$49.8 million for fiscal year 2017, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority rents certain facilities space to and provides limited support services for the University. The income earned by the Authority for such items was approximately \$3.2 million during fiscal year 2017, which is included in other revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority had a net payable to the University of approximately \$9.56 million at June 30, 2017. This payable is a component of due to related parties on the Statement of Net Position.

(b) University Medical Associates (UMA)

UMA, a blended component unit of the University, is a separately organized professional services corporation associated with the University's faculty practice plan. UMA and the Authority have entered into certain agreements related to clinical and other services provided by UMA and its practicing physicians for the benefit of the Authority. Net amounts paid by the Authority to UMA under these agreements totaled approximately \$64.8 million during fiscal year 2017 and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

UMA also provides billing and collection services to the Authority related to certain limited clinical services, for which UMA receives an administrative fee. Total billings by UMA for the Authority services were approximately \$49.3 million in fiscal year 2017. The amounts collected and remitted by UMA to the Authority with respect to these billings amounted to approximately \$6.7 million in fiscal year 2017. The administrative fees paid by the Authority to UMA amounted to approximately \$825 thousand for fiscal year 2017 and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Notes to Basic Financial Statements

June 30, 2017

UMA and the Authority jointly fund the costs of an ambulatory and revenue cycle Electronic Health Record (EHR) system. The funding percentages for each entity depend on the particular costs incurred. The types of costs paid in fiscal year 2017 were primarily operating costs. Net amounts paid by UMA to the Authority totaled approximately \$2.5 million during fiscal year 2017 and are included in compensation and employee benefits and services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority had a net payable to UMA in the amount of approximately \$2.2 million at June 30, 2017. This payable is a component of due to related parties on the Statement of Net Position.

(c) The State of South Carolina

The Authority benefits from certain administrative services provided by related State agencies and departments. The cost of these services (primarily related to insurance program administration, record keeping and centralized treasury management) is either insignificant relative to the Authority's allocable portion or is funded by the Authority with payments as described in notes 6, 8, 10, 11, 13 and 15.

(16) Purchase Commitments

The Authority entered into a long-term agreement on March 25, 2016 that requires certain minimum purchases of patient monitoring products and services through fiscal year 2024. Effective July 1, 2016, the Authority amended the original agreement to reduce the required minimum purchases and corresponding unitary payments. The agreement cost is approximately \$30.8 million and calls for 96 monthly unitary payments of \$360,506. The patient monitoring products and services will be consumed over the agreement period and in conjunction with a time line that was developed at agreement inception. The time line can be modified by the parties and this commitment is at a level consistent with normal business practices.

At June 30, 2017, the minimum purchase commitments extending beyond one year are as follows:

2018	\$	4,326,072
2019		4,326,072
2020		4,326,072
2021		4,326,072
2022		4,326,072
2023-2024		<u>8,652,144</u>
Total	\$	<u>30,282,504</u>

During 2017, the Authority's total purchases under the contract were approximately \$2.1 million. The Authority has an available balance of \$25.2 million in goods and services at June 30, 2017.

A portion of the minimum purchases under this contract are capital leases and are included in the required lease disclosures in note 14.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Notes to Basic Financial Statements

June 30, 2017

(17) Investment in Initiant, LLC

In April 2014, the Authority became a founding member of a health collaborative named Initiant, LLC. The purpose of this collaborative is to create efficiencies and synergies that mitigate the rising costs of healthcare through joint purchasing of equipment, supplies, and services, shared administrative and clinical support systems and access to critical competencies not available or affordable to a single member. Initiant is a limited liability company owned by the founding members, with the opportunity to add more members (owners) and participants (nonowners) over time. The Authority has representation on the Board of Managers of the collaborative and exercises joint control with the other members over Initiant, LLC. The other members are Greenville Health System (Greenville, SC), McLeod Health (Florence, SC), Palmetto Health (Columbia, SC) and Self Regional Healthcare (Greenwood, SC).

In May 2016, Initiant, LLC's board of managers voted to change from an expense reimbursement structure to a combination of capital calls and member loans. In September 2016, the Authority made a member loan to Initiant of \$684,839. The loan term is 10 years with no scheduled principal payback until the loan matures in September 2026. The loan accrues interest at a rate of 3.25% and is payable on September 30, 2017 and each consecutive year thereafter.

The Authority is responsible for its respective (20% ownership) share of all future capital calls. To date, the Authority has contributed \$695,600 in capital calls to Initiant, LLC and this amount includes \$125,000 in fiscal year 2017. The Authority uses the equity method of accounting for its investment in Initiant, LLC and its investment balance at June 30, 2017 is negative \$440,463. This amount and the loan receivable are reported with "Investments in joint ventures and partnerships" on the Statement of Net Position.

Initiant, LLC issued separate financial statements during fiscal year 2017.

(18) Subsequent Events

There were no subsequent events in the current year.

THE AUTHORITY'S
Schedule of Proportionate Share
of Net Pension Liability to PEBA
South Carolina Retirement System (SCRS) Pension Plan
June 30, 2016 Measurement Date

<u>Year Ending June 30</u>	<u>Proportion (percentage) of the collective net pension liability</u>	<u>Proportionate share (amount) of the collective net pension liability</u>	<u>Covered payroll</u>	<u>Proportionate share (amount) of the collective net pension liability as a percentage of its covered payroll</u>	<u>Pension plan's fiduciary net position as a percentage of total pension liability</u>
2017	3.471014%	\$ 741,403,467	287,923,152	257.50%	52.90%
2016	3.377349	640,530,521	281,452,784	227.58	57.00
2015	3.289076	566,270,880	268,970,820	210.53	59.90
2014	3.289184	589,943,980	259,311,350	227.50	56.39

The above schedules are intended to show ten years of information. Additional years will be provided as they become available.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

THE AUTHORITY'S
Schedule of Proportionate Share
of Net Pension Liability to PEBA
Police Officers Retirement System (PORS) Pension Plan
June 30, 2016 Measurement Date

<u>Year Ending June 30</u>	<u>Proportion (percentage) of the collective net pension liability</u>	<u>Proportionate share (amount) of the collective net pension liability</u>	<u>Covered payroll</u>	<u>Proportionate share (amount) of the collective net pension liability as a percentage of its covered payroll</u>	<u>Pension plan's fiduciary net position as a percentage of total pension liability</u>
2017	0.21513%	\$ 5,456,693	2,653,533	205.64%	60.40%
2016	0.21917	4,776,715	2,730,140	174.96	64.60
2015	0.21963	4,204,542	2,692,311	156.17	67.50
2014	0.21962	4,552,745	2,589,067	175.85	62.98

The above schedules are intended to show ten years of information. Additional years will be provided as they become available.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

THE AUTHORITY'S
Schedule of Employer Contributions to PEBA
South Carolina Retirement System (SCRS) Pension Plan
Fiscal Year ended June 30, 2017

<u>Year Ending June 30</u>	<u>Employer contributions</u>	<u>Statutorily or contractually required employer contributions</u>	<u>Contribution deficiency (excess)</u>	<u>Covered payroll</u>	<u>Contributions as a percentage of covered payroll</u>
2017	\$ 40,427,071	40,427,071	—	287,923,152	14.04%
2016	37,175,029	37,175,029	—	281,452,784	13.21
2015	34,516,724	34,516,724	—	268,970,820	12.83
2014	31,652,157	31,652,157	—	259,311,350	12.21
2013	27,997,059	27,997,059	—	264,123,194	10.60

The above schedules are intended to show ten years of information. Additional years will be provided as they become available.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

THE AUTHORITY'S
Schedule of Employer Contributions to PEBA
Police Officers Retirement System (PORS) Pension Plan
Fiscal Year ended June 30, 2017

<u>Year Ending June 30</u>	<u>Employer contributions</u>	<u>Statutorily or contractually required employer contributions</u>	<u>Contribution deficiency (excess)</u>	<u>Covered payroll</u>	<u>Contribution as a percentage of covered payroll</u>
2017	\$ 380,109	380,109	—	2,653,533	14.32%
2016	376,835	376,835	—	2,730,140	13.80
2015	364,104	364,104	—	2,692,311	13.52
2014	339,175	339,175	—	2,589,067	13.10
2013	349,962	349,962	—	2,845,220	12.30

The above schedules are intended to show ten years of information. Additional years will be provided as they become available.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Notes to Required Supplementary Information

June 30, 2017

(Unaudited)

SCRS

Valuation date	Actuarially calculated contribution rates are calculated as of July 1, 2013.
Methods and assumptions used to determine contribution rates:	
Actuarial cost method	Entry age normal
Amortization method	Level% of pay
Amortization period	30 years, open
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.
Inflation	2.75%
Investment rate of return	7.50%
Salary increases	3.50% plus step-rate increases for members with less than 25 years of service.
Mortality	RP-2000 Mortality Table (White Collar Adjustment for Educators), projected at Scale AA from Year 2000. Male rates multiplied by 100% for noneducators and 110% for educators. Female rates multiplied by 90% for noneducators and 95% for educators.
Other comments	As a result of enactment of Act 278, the member and employer contribution rates for SCRS is determined in accordance with Section 9-1-108.5 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.

PORS

Valuation date	Actuarially calculated contribution rates are calculated as of July 1, 2013.
Methods and assumptions used to determine contribution rates:	
Actuarial cost method	Entry age normal
Amortization method	Level% of pay
Amortization period	30 years, open
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.
Inflation	2.75%
Investment rate of return	7.50%
Salary increases	4% plus step-rate increases for members with less than 12 years of service.
Mortality	RP-2000 Mortality Table with Blue Collar Adjustment, projected at Scale AA from Year 2000. Male and female rates are multiplied at 115%.
Other comments	As a result of enactment of Act 278, the member and employer contribution rates for PORS are determined in accordance with Section 9-11-225 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.



MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)
Basic Financial Statements and Required Supplementary Information
June 30, 2016
(With Independent Auditors' Report Thereon)

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MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

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KPMG LLP
Suite 400
300 North Greene Street
Greensboro, NC 27401

Independent Auditors' Report

The Board of Trustees
Medical University Hospital Authority:

We have audited the accompanying financial statements of the Medical University Hospital Authority (the Authority), a component unit of The Medical University of South Carolina, as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Medical University Hospital Authority as of June 30, 2016, and the changes in its net position and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership,
the U.S. member firm of KPMG International Cooperative
("KPMG International"), a Swiss entity.

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MUSC_00927



Emphasis of Matter

As discussed in note 1(m) to the financial statements, during fiscal year 2016 the Authority adopted Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 3-13 and the schedules of proportionate share of the net pension liability to PEBA and the schedules of employer contributions to PEBA on pages 47-49 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 21, 2016 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

KPMG LLP

Greensboro, North Carolina
September 21, 2016

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

Our discussion and analysis of Medical University Hospital Authority's (the Authority) financial performance provides an overview of the activities for the fiscal year ended June 30, 2016.

The intent of this discussion and analysis is to provide further information regarding the Authority's financial performance as a whole. Readers should also review the basic financial statements, along with the notes to the basic financial statements, to further enhance their understanding of the Authority's financial performance.

Financial Highlights – Fiscal 2016 and 2015

At June 30, 2016, the Authority's liabilities and deferred inflows of \$1,177.7 million exceeded its assets and deferred outflows of \$1,107.9 million by \$69.8 million. This financial result is again driven by the implementation of GASB 68 in fiscal 2015. Net position, the residual interest in the assets and deferred outflows after liabilities and deferred inflows are deducted, increased by \$37.5 million in 2016, as compared to an increase of \$47.6 million in 2015.

The Authority reported operating income in 2016 of \$14.9 million, as compared to operating income of \$45.0 million in 2015, a decrease of \$30.1 million. Some of the major drivers for this change in operating income include increasing pension benefits costs, increases in compensation and employee benefit costs, and increases in the average length of stay for patients.

Net nonoperating revenue was \$22.5 million for 2016, as compared to net nonoperating revenue of \$2.5 million in 2015, an increase of \$20.0 million or 785.6%. The major drivers for this net increase are a \$22.0 million increase in the state appropriation that includes \$25.0 million for the Phase II hospital replacement project and a \$2.3 million increase in investment income.

Overview of the Financial Statements

The Authority, a major discreetly presented component unit of the Medical University of South Carolina (the University), owns and operates the clinical teaching sites of the University and serves the State of South Carolina as a principal diagnostic and treatment referral center.

The Authority's basic financial statements consist of three statements – a Statement of Net Position; a Statement of Revenues, Expenses and Changes in Net Position; and a Statement of Cash Flows. These basic financial statements are prepared in accordance with Governmental Accounting Standards Board (GASB) principles, and provide detailed information about the activities of the Authority and generally provide an indication of the Authority's financial health.

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Authority's resources and its activities. The Statement of Net Position presents the assets, both restricted and unrestricted, deferred outflows and inflows of resources, and all liabilities using the accrual basis of accounting. The Statement of Revenues, Expenses and Changes in Net Position reports all of the revenues and expenses for the time period indicated, regardless of when cash is received or paid, as well as payments to the University. These two statements report the Authority's net position and its changes.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

The Statement of Cash Flows

The final required statement is the Statement of Cash Flows. This statement reports cash receipts, cash payments, and net changes in cash resulting from operating, investing, and capital and noncapital-related financing activities.

The Authority's Net Position

The Authority's net position is the difference between its assets and deferred outflows and liabilities and deferred inflows reported in the Statement of Net Position. A comparative summary of assets, deferred outflows, liabilities, deferred inflows and net position is as follows:

Summary Schedule of Net Position

(In thousands)

	2016	2015
Assets:		
Current assets	\$ 444,622	385,228
Investments	52,356	47,284
Capital assets, net	512,516	509,198
Total assets	1,009,494	941,710
Deferred outflows	98,357	88,010
Total assets and deferred outflows	1,107,851	1,029,720
Liabilities:		
Current liabilities	171,912	149,680
Long-term debt	359,324	368,618
Net pension liability	645,307	570,493
Total liabilities	1,176,543	1,088,791
Deferred inflows	1,154	48,227
Total liabilities and deferred inflows	1,177,697	1,137,018
Net assets:		
Net investment in capital assets	164,574	158,527
Restricted:		
Under indenture agreements	52,356	47,284
Capital projects	25,000	—
Major programs	30,759	27,062
Unrestricted (deficit)	(342,535)	(340,170)
Total net position	\$ (69,846)	(107,297)

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

Analysis of the Financial Position as of June 30, 2016 Compared to June 30, 2015

Total assets and deferred outflows increased \$78.1 million or 7.6% from \$1,029.7 million in 2015 to \$1,107.9 million in 2016. Current assets increased \$59.4 million, largely driven by an increase in restricted cash of \$23.6 million that includes \$25.0 million for the Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion, a \$15.9 million increase in patient accounts receivable, a \$10.0 million increase in third-party receivables and a DSH receivable of \$10.0 million. Investment activity increased \$10.1 million and includes an increase in current investments of \$5.0 million, an increase in noncurrent investments of \$5.1 million and deferred outflows for pension activity increased 11.8% from \$88.0 million in 2015 to \$98.4 million in 2016.

Total liabilities and deferred inflows increased 3.6% from \$1,137.0 million in 2015 to \$1,177.7 million in 2016. Current liabilities increased 14.9% from \$149.7 million in 2015 to \$171.9 million in 2016, largely driven by increases in accrued payroll, accounts payable and current installments of capital lease obligations. The pension liability increased 13.1% from \$570.5 million in 2015 to \$645.3 million in 2016. This increase was partially offset by a decrease in deferred inflows for pension activity of 97.6% from \$48.2 million in 2015 to \$1.2 million in 2016.

From the data presented, readers of the Statement of Net Position are able to determine the assets available to continue the operations of the Authority. They are also able to determine how much is owed to vendors, employees, and others. Finally, the Statement of Net Position provides a picture of the net position (assets and deferred outflows minus liabilities and deferred inflows) and their availability for expenditure.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

Operating Results and Changes in the Authority's Net Position

Revenues, Expenses and Changes in Net Position

(In thousands)

	<u>2016</u>	<u>2015</u>
Operating revenues:		
Net patient service revenue	\$ 1,301,324	1,231,501
Other revenue	25,333	26,301
Total operating revenues	<u>1,326,657</u>	<u>1,257,802</u>
Operating expenses:		
Compensation and employee benefits	554,624	515,052
Pension benefits	13,311	5,148
Services and supplies	679,934	631,911
Depreciation and amortization	63,841	60,666
Total operating expenses	<u>1,311,710</u>	<u>1,212,777</u>
Operating income	14,947	45,025
Nonoperating revenues (expenses):		
State appropriations	42,000	20,000
Gifts and grants	550	1,392
Investment income	4,377	2,054
Interest expense	(15,388)	(15,894)
Loss on disposal of capital assets	(7,297)	(4,011)
CHWP bond issuance cost	(738)	—
Other nonoperating expenses	(1,000)	(1,000)
Increase in net position	\$ <u>37,451</u>	<u>47,566</u>

The Statement of Revenues, Expenses and Changes in Net Position presents the revenues earned and expenses incurred during the year. Activities are reported as either operating or nonoperating. Operating revenues are received for providing goods and services. Operating expenses are paid to acquire or produce the goods and services and to carry out the mission of the Authority. Nonoperating revenues and expenses are the result of activities for which goods and services are not provided. The utilization of capital assets is reflected in the financial statements as depreciation and amortization, which is the impact of depreciating the cost of each asset over its expected useful life. Changes in net position are based on the activity presented in the Statement of Revenues, Expenses and Changes in Net Position.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

Analysis of Operating Results for the Year ended June 30, 2016 Compared to the Year ended June 30, 2015

Net Patient Service Revenue

Compared to fiscal year 2015, net patient service revenue increased by approximately \$69.8 million, or 5.7%. Gross patient charges increased by \$305.6 million, or 9.3%, from 2015 to 2016 due to increases in patient activity and comprehensive rate increases. Net revenue recognized related to the DSH program administered by the state Department of Health and Human Services increased in 2016 to \$48.0 million from \$44.1 million in 2015. There can be no assurance that the Authority will continue to qualify for future participation in the DSH program or that the DSH program will not ultimately be discontinued or materially modified.

Payor class percentages changed somewhat from 2016 to 2015, showing an increase in Blue Cross and Medicare payor classes, a decrease in Medically Indigent/Self Pay/Other and no change in Medicaid and Private Insurance/Managed Care payor classes as shown in the table below:

Percentage of Net Patient Service Revenue by Payor Class

	<u>2016</u>	<u>2015</u>
Blue Cross	27%	25%
Medicare	32	30
Medicaid	24	24
Private Insurance/Managed Care	14	14
Medically Indigent/Self Pay/Other	3	7
Total	<u>100%</u>	<u>100%</u>

Inpatient Business Activity

Inpatient days of care increased by 2.76%, from 237,439 in 2015 to 243,992 in 2016, as summarized below. Average length of stay for all patients was 6.5 days in 2016 and 6.2 days in 2015. The average daily census increased in 2016 to 668 from the 2015 average of 643. Admissions increased in 2016 to 37,897 from the 2015 level of 37,666. Inpatient surgical procedures increased 3.2% from 19,981 in 2015 to 20,624 in 2016. The Medicare case mix index is a measure of inpatient acuity and remained flat at 2.2 in fiscal year 2015 and fiscal year 2016.

Summary of Inpatient Days

	<u>2016</u>	<u>2015</u>
Medical services	107,333	106,494
Surgical services	66,055	67,802
Psychiatric services	34,004	30,962
Women's services	36,600	32,181
Total inpatient days	<u>243,992</u>	<u>237,439</u>

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2016

(Unaudited)

Outpatient Business Activity

Outpatient visits volume increased by 37,392 visits, or 3.6%, from 1,051,874 in 2015 to 1,089,266 in 2016. Emergency/Trauma visits increased to 84,060 in 2016 from the 2015 level of 82,426. Outpatient surgical procedures performed in 2016 totaled 8,310, as compared to 8,383 in 2015, a decrease of 0.9%.

Deductions from Revenue

Contractual and other adjustments, expressed as a percentage of gross revenue (60.4%), increased 2.5% from 2015 to 2016. Contractual and other adjustments expressed in dollars increased by \$266.3 million from 2015 to 2016. The increase is due to the fact that reimbursements from Medicare, Medicaid and third-party insurers are less than billed charges and increases in charges implemented by the Authority are not matched by increased reimbursement rates.

The provision for uncollectible accounts decreased \$30.5 million, or 19.2% from 2015 to 2016 to a total of \$128.7 million for the year ended June 30, 2016. The decrease is due to an increase in charity care and an increase in bad debt recoveries. The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Authority has established policies under which it provides care to needy members of its communities. These policies include discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$110.4 million and \$63.0 million (as measured by established charges) were provided without charge during fiscal 2016 and 2015, respectively. The \$47.4 million increase is related to a 21.0% increase in eligible charity care patients from 2015 to 2016. This increase is supported by the Authority's continued focus and efforts on enhancing policy and process to identify and qualify eligible Medicaid and charity care patients.

In total, uncompensated care write-offs at established rates as measured by the total of bad debts plus charity care totaled 6.4% and 6.6% of gross patient charges for fiscal 2016 and 2015, respectively.

Operating Expenses

Operating expenses increased by \$98.9 million, from \$1,212.8 million in 2015 to \$1,311.7 million in 2016. This 8.2% increase is primarily the result of the increased costs associated with a higher average length of stay for patients, pension expense, staffing costs, and telehealth expenses (these expenses are offset by the State Appropriation for Telehealth recognized as revenue in the nonoperating section). These drivers impacted the following increases: services and supplies expense of \$48.0 million or 7.6%, compensation and employee benefits of \$39.6 million or 7.7% and pension benefits of \$8.2 million or 158.6%.

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Additionally, supply costs and pharmaceutical costs continue to increase at rates exceeding those of general inflation; however, rates of increase are comparable to inflation rates for the healthcare industry. Depreciation and amortization expense increased \$3.2 million or 5.2% in fiscal 2016.

Summary of Operating Expenses by Function

(In thousands)

	<u>2016</u>	<u>2015</u>
Patient services	\$ 932,061	858,992
General and administrative	315,808	293,118
Depreciation and amortization	<u>63,841</u>	<u>60,667</u>
Total operating expenses	<u>\$ 1,311,710</u>	<u>1,212,777</u>

Capital Assets

At the end of fiscal year 2016, the Authority had \$512.5 million invested in capital assets, net of accumulated depreciation, as shown in note 4 to the financial statements. Total capital asset additions increased \$29.9 million, from \$47.1 million in 2015 to \$77.0 million in 2016. The increase from 2015 to 2016 is the result of several significant contributors. Additions to major movable equipment increased \$6.8 million and the Authority restructured multiple lease agreements that resulted in recording of capital lease assets of \$6.7 million. Additions to construction in progress of \$35.6 million increased CIP by \$13.5 million, primarily related to the two projects discussed below.

Approximately \$8.6 million of the \$35.6 million of construction in progress additions relates to renovations of the 7th floor of the Ashley River Tower hospital. The 7th floor was converted from office space to patient care space which was completed in November 2015.

Approximately \$12.9 million of the \$35.6 million of construction in progress additions relates to the Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion (CHWP), Phase II of the Authority's 30-year hospital replacement program. The CHWP facility is expected to cost approximately \$385 million and hold about 200 beds. To prepare the construction site, the Authority demolished Charleston Memorial Hospital and the McClennan-Banks building, resulting in retirement of assets with costs of \$7.9 million and \$5.4 million, respectively, as of June 30, 2016. Construction is expected to start in August 2016 and the CHWP has a target opening date of August 2019. Phase II progress is contingent on obtaining the necessary funds for the project.

Efforts to improve the clinical equipment and vehicle inventory processes began in the latter part of fiscal year 2013 and have continued through fiscal year 2016. The result has been a decrease in the reported costs of assets of approximately \$21.2 million and \$30.4 million in 2016 and 2015, respectively. Most of the assets were fully depreciated upon disposal.

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The Authority uses both internal funds from operations and external debt capital in financing its capital acquisitions. Some capital acquisitions are also funded by federal grants and state appropriations. The most significant debt financing programs are discussed in further detail under "Financing" below.

See note 4 for more details on capital assets.

Financing

The Authority has begun a phased-approach replacement of much of its principal patient care facilities, a project planned for completion in stages over 30 years. Phase I of the project involved building a facility comprised of a four-story diagnostic and treatment center, a seven-story hospitality (bed) tower, and a garden atrium uniting the two sections of the building. Phase I of the project was completed in fiscal 2008. Ashley River Tower, the 641,000 square-foot facility was opened on February 4, 2008. No new clinical health services were added as a result of this phase of the project.

Phase II will be a Children's Hospital and Women's Pavilion (CHWP). Initial planning was begun in fiscal 2015 and continued in fiscal 2016 with architectural design derived from numerous clinical meetings and discussion of a financing plan. A preapplication document for the \$350 million project was submitted to the US Department of Housing & Urban Development relating to the FHA Section 241 loan program in August 2015. At June 30, 2015, almost \$68 million had been secured by way of state funding and philanthropy for Phase II. The State of South Carolina approved \$25 million in the FY2016 budget and \$10 million in the FY2017 budget for this project. Shawn Jenkins, a local business owner, pledged \$25 million and the Tourville family pledged another \$10 million. The hospital will be named the MUSC Shawn Jenkins Children's Hospital and Pearl Tourville Women's Pavilion in honor of their generosity. This level of money raised to support the project should make HUD financing possible and maintain the hospital's development and construction timeline.

On December 22, 2004, the Authority issued \$422.1 million of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004), consisting of \$304.0 million Series A Tax-Exempt Bonds and \$118.1 million Series B Taxable Bonds for the purpose of providing funds to (a) pay the costs of Phase I of the project mentioned above, (b) pay a portion of the interest accruing on the Bonds during construction of Phase I, (c) prepay the outstanding amount of the Charleston County Memorial Hospital Revenue Note, (d) advance refund the \$102.8 million Hospital Facilities Refunding Revenue Bonds, Series 2002A, (e) fund a debt service reserve fund with respect to the Bonds, and (f) pay certain costs incurred in connection with the issuance of the Bonds.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61.0 million of Economic Development Revenue Bonds, CEP Series 2004. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a Loan Agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156bed Phase I Authority project mentioned above. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the Bonds.

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On March 15, 2007, the construction of the Central Energy Plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59.4 million bonds into Indexed Floating Rate Bonds to reduce the cost of capital and annual debt service payments detailed in note 6 to the financial statements. Concurrent with the conversion of the bonds, MUFC Central Energy Plant entered into a variable-to-fixed interest rate swap. The intention of the swap was to effectively convert the variable interest rate paid on the bonds to a synthetic fixed rate of 5.755%. This interest rate swap was terminated on December 30, 2013 and a payment of \$2.1 million was made as part of the refinancing of the Central Energy Plant.

Management continues to look for opportunities to reduce nonoperating expenses. With interest expense being the largest nonoperating expense and interest rates at historically low levels, the Authority engaged a financial advisor in fiscal 2012 to help determine the most effective refinancing vehicle. On December 19, 2012, the refinancing of the Authority's Series 2004 bonds with Government National Mortgage Agency (GNMA) mortgage-backed securities (MBS) was completed. Long-term debt was reduced when funds in the debt service reserve and other accounts of approximately \$47.4 million were made available to reduce principal. Interest was fixed at 2.94% and the amortization schedule was not extended. On December 30, 2013, the Authority refinanced the 2004 Central Energy Plant Economic Development Revenue Bonds (CEP Series 2004 bonds) with GNMA MBS. Interest was fixed at 3.85% and the amortization schedule was not extended.

The Authority entered into a six-month revenue anticipation note with Branch Banking and Trust Company (BB&T) on August 20, 2013 that expired February 20, 2014. This revenue anticipation note was renewed March 14, 2014 and expired September 14, 2014. The Authority entered into a similar contract with BB&T in August 2014 that renewed March 19, 2015, expired September 19, 2015 and was not renewed. There was no new activity on this note in fiscal year 2016.

In April 2013, the Authority entered into a \$13.8 million equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

The Authority is in the process of structuring a transaction to facilitate the issuance of approximately \$316.0 million GNMA MBS for the purpose of financing the construction of the Phase II CHWP and paying associated transaction costs. The Authority has received a commitment for Insurance Advances letter and anticipates issuing the new securities in the fall of 2016.

See note 6 for more details on financing activities.

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Current Operating Environment

The U.S. economy continues its recovery from the downturn of the past several years. Management of the Authority monitors these economic conditions closely, both with respect to potential impacts on the healthcare provider industry and from a more general business perspective. While the Authority was able to achieve certain objectives of importance in the current economic environment, management recognizes that economic conditions may continue to impact the Authority in a number of ways, including (but not limited to) uncertainties associated with the global economy, improvement in the unemployment rate and associated impact on uninsured patients, and stress on the federal, state and local budgets. Additionally, the general healthcare industry environment is increasingly uncertain, especially with respect to the impacts of the federal healthcare reform legislation which was passed in the spring of 2010. Potential impacts of ongoing healthcare industry transformation include, but are not limited to:

- Continuing volatility in the state and federal government reimbursement programs; for example, the Affordable Care Act reduces payments to all hospitals by \$155 billion over ten years; it was projected that these cuts would be offset by the reduction in the uninsured population. While South Carolina chose not to expand Medicaid the uninsured rate has dropped from 18.7% to 15.4%;
- Exchange reimbursement levels that are significantly below those of traditional commercial insurance companies, payor policies that do not recognize valid assignment of benefits from patients and send payment for healthcare services to patients. Changes in combined state/federal disproportionate share payments, increasing reliance on managed care plans by Medicare and Medicaid and attendant increases in program complexity and payment delays and impact on the healthcare "demand curve" as the previously uninsured enter the insurance system;
- Effective management of multiple major regulatory mandates, including achievement of meaningful use of HCIT and the transition to ICD-10; and
- Significant potential business model changes throughout the healthcare industry, including recently announced mergers of the nation's largest health insurers.

In South Carolina, in order to control escalating Medicaid costs, the Department of Health and Human Services has maintained the changes that were implemented for hospital service rates to remain at the November, 2012 payment levels:

- Inpatient hospital base rates were increased 2.75% on October 1, 2013 and 2.50% on October 1, 2014 and adjusted on October 1, 2015 to maintain the ninety three percent (93%) of cost target;
- Inpatient Graduate Medical Education (Direct and Indirect Medical education) reimbursement rates remain at the November 1, 2012 level;
- Outpatient hospital multiplier was adjusted to maintain the ninety three percent (93%) of cost target.

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These reimbursement rate adjustments have had and will continue to have a significant impact on the Authority's financial performance. To help minimize the impact of this revenue reduction, the Authority continues implementation of a hospital-wide response plan directed at high-impact areas, both clinically and financially. All areas of a patient's stay are reviewed, including (but not limited to) reducing length of stay, standardization of supplies, use of generic vs. brand name drugs, staffing ratios, and new information technology to improve medical coding and billing.

The business of healthcare in the current economic, legislative and regulatory environment is volatile. Any of the above factors, along with others both currently in existence and which may or may not arise in the future, could have a material adverse impact on the Authority's financial position and operating results.

During the fiscal year ended June 30, 2016, the Authority created a consolidated clinical enterprise under the brand of MUSC Health. This enterprise is an effort to further integrate the clinical operations of the Authority and MUSC Physicians. Both entities will retain their existing separate legal entities under this enterprise, but will work more closely together to manage their combined clinical operations.

Contacting the Authority's Financial Management

This financial report is designed to provide interested parties with a general overview of the Authority's finances and to show the Authority's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Authority's Chief Financial Officer at Medical University Hospital Authority, P.O. Box 250332, Charleston, SC 29425.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Statement of Net Position

June 30, 2016

Assets and Deferred Outflows

Current assets:	
Cash and cash equivalents	\$ 107,833,556
Cash restricted for capital projects and major programs	40,151,522
Investments restricted for capital projects and major programs	15,057,095
Patient accounts receivable, net of allowance for uncollectible accounts of approximately \$88,600,000	198,960,936
Due from third-party payors	17,929,078
Other current assets	64,689,279
Total current assets	444,621,466
Investments held by trustees under indenture agreements	52,356,374
Capital assets, net:	512,516,286
Total assets	1,009,494,126
Deferred outflows	98,356,614
Total assets and deferred outflows	\$ 1,107,850,740

Liabilities, Deferred Inflows and Net Position

Current liabilities:	
Current installments of long-term debt and capital lease obligations	\$ 21,460,829
Accounts payable	63,742,372
Accrued payroll, withholdings, and benefits	69,205,019
Due to related parties	7,037,419
Due to third-party payors	5,049,668
Other accrued expenses	5,416,800
Total current liabilities	171,912,107
Long-term debt and capital lease obligations net of current installments	359,323,624
Net pension liability	645,307,236
Total liabilities	1,176,542,967
Deferred inflows	1,153,583
Total liabilities and deferred inflows	1,177,696,550
Net position:	
Net investment in capital assets	164,574,408
Restricted:	
Under indenture agreements	52,356,374
Capital projects	25,000,000
Major programs	30,758,617
Unrestricted (deficit)	(342,535,209)
Total net position	(69,845,810)
Total liabilities, deferred inflows, and net position	\$ 1,107,850,740

See accompanying notes to basic financial statements.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Statement of Revenues, Expenses and Changes in Net Position

Year ended June 30, 2016

Operating revenues:	
Net patient service revenue (net of provision for uncollectable accounts of \$128,683,666)	\$ 1,301,323,915
Other revenue	25,333,565
Total operating revenues	<u>1,326,657,480</u>
Operating expenses:	
Compensation and employee benefits	554,624,082
Pension benefits	13,311,228
Services and supplies	679,934,296
Depreciation and amortization	63,840,599
Total operating expenses	<u>1,311,710,205</u>
Operating income	14,947,275
Nonoperating revenue (expense):	
State appropriations	42,000,000
Gifts and grants	549,999
Investment income	4,377,443
Interest expense	(15,388,607)
Loss on disposal of capital assets	(7,296,642)
CHWP bond issuance cost	(737,899)
Other nonoperating expenses	(1,000,000)
Increase in net position	<u>37,451,569</u>
Net position, beginning of year	<u>(107,297,379)</u>
Net position, end of year	<u>\$ (69,845,810)</u>

See accompanying notes to basic financial statements.

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Statement of Cash Flows
Year ended June 30, 2016

Cash flows from operating activities:	
Receipts from patients and third-party payors	\$ 1,266,350,236
Other cash receipts	24,758,670
Payments to suppliers and employees	(1,218,119,457)
Net cash provided by operating activities	<u>72,989,449</u>
Cash flows from noncapital financing activities:	
State appropriations	17,000,000
Net cash provided by noncapital financing activities	<u>17,000,000</u>
Cash flows from capital and related financing activities:	
Capital expenditures	(61,752,282)
Capital appropriations	25,000,000
Capital grants and gifts received	399,263
Proceeds from disposal of capital assets	101,400
Payments of principal on long-term debt	(17,325,315)
Payments of bond issuance cost	(737,899)
Payments of bond insurance premium	(1,533,324)
Payments on capital lease obligations	(1,777,595)
Payments on licensing fee obligations	(1,209,936)
Interest payments	(11,704,257)
Net cash provided by capital and related financing activities	<u>(70,539,945)</u>
Cash flows from investing activities:	
Proceeds from sale and maturity of investments	59,059,598
Investment income received	1,275,991
Purchases of investments	(40,074,531)
Net cash provided by investing activities	<u>20,261,058</u>
Net increase in cash and cash equivalents	<u>39,710,562</u>
Cash and cash equivalents at beginning of year	<u>134,733,141</u>
Cash and cash equivalents at end of year	<u>\$ 174,443,703</u>
Reconciliation of operating income to net cash provided by operating activities:	
Operating income	\$ 14,947,275
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation and amortization	63,840,599
Provision for uncollectible accounts	128,683,666
Changes in operating assets and liabilities:	
Patient accounts receivable	(144,621,533)
Due from third-party payors	(10,068,232)
Other current assets	(13,499,205)
Accounts payable	8,292,672
Other accrued expenses and accrued payroll, withholding and benefits	21,924,011
Due to third-party payors	2,248,328
Due to related parties	1,241,868
Net cash provided by operating activities	<u>\$ 72,989,449</u>
Reconciliation of cash and cash equivalents at end of year to the statement of net position:	
Cash and cash equivalents	\$ 107,833,556
Restricted for capital projects and major programs	40,151,522
Included in investments held by trustees under indenture agreements	26,458,625
	<u>\$ 174,443,703</u>
Noncash transactions:	
Capital lease equipment	\$ 13,482,256
Change in fair value of investments	3,209,614
Change in capital assets payable	(1,056,409)

See accompanying notes to basic financial statements.

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Notes to Basic Financial Statements

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(1) Summary of Significant Accounting Policies

Medical University Hospital Authority (the Authority) is a multidimensional healthcare system headquartered in Charleston, South Carolina. The Authority is a principal diagnostic and treatment-referral center for the State of South Carolina, and also owns and operates the principal clinical teaching institutions for The Medical University of South Carolina (the University). The primary facilities used by the Authority, all located on or near the Authority's main campus in Charleston, consist of the following:

- University Hospital
- Ashley River Tower
- Children's Hospital
- Storm Eye Institute
- Institute of Psychiatry
- Digestive Disease Center
- Transplant Center
- Hollings Cancer Center
- MUSC Heart and Vascular Center

Reporting Entity

The Authority is a major discretely presented component unit of the University, as defined by the provisions of Governmental Accounting Standards Board (GASB) Statement No. 61, *The Financial Reporting Entity: Omnibus* (Statement No. 61). The Authority's component unit relationship to the University arises principally because the nature and significance of the relationship is such that exclusion would cause the University's financial statements to be misleading or incomplete. In particular, the legislation establishing the Authority as a stand-alone healthcare system, effective July 1, 2000, requires that the members of the University's Board of Trustees also constitute the Board of Trustees of the Authority.

The significant accounting policies used by the Authority in preparing and presenting its financial statements are as follows:

(a) Basis of Accounting

For financial reporting purposes, the Authority is considered a special purpose government engaged only in business-type activities. Accordingly, the financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred.

(b) Cash Equivalents

The Authority considers investments in highly liquid individual debt instruments (with an original maturity of three months or less) and similar fund positions to be cash equivalents.

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(c) Inventories

Inventories, consisting principally of medical supplies and pharmaceuticals, are stated at the lower of cost (first-in, first-out) or replacement value and are included in other current assets in the accompanying Statement of Net Position.

(d) Investments and Investment Income

Investments are carried at fair value and consist of internally or externally restricted cash equivalents and treasury obligations with original maturities greater than three months. Fair value measurements are categorized within the fair value hierarchy established by generally accepted accounting principles and investment income or loss from investments (including realized and unrealized gains and losses on investments and interest) is reported as nonoperating revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

(e) Capital Assets

Capital assets are recorded at cost at the date of acquisition or, if donated, at fair value at the date of receipt. Depreciation is provided over the useful life of each class of depreciable assets using the straight-line method. Equipment under capital lease obligations is amortized using the straight-line method over the estimated useful life of the equipment or lease term, and such amortization is included in depreciation and amortization in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

A summary of depreciable lives is as follows:

Land improvements	3-25 years
Buildings, improvements, and fixed equipment	5-50 years
Machinery, equipment, and vehicles	2-20 years
Software	3-5 years

(f) Statement of Revenues, Expenses and Changes in Net Position

For purposes of presentation, transactions deemed by management to be ongoing, major or central to the provision of healthcare services are reported as operating revenues and operating expenses. Principal nonoperating transactions include state appropriations, gifts and grants, investment income, interest expense, loss on disposal of capital assets and financing costs.

(g) Net Patient Service Revenue

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered, and includes estimated retroactive revenue adjustments due to future audits, reviews, and investigations, as well as the provision for uncollectible accounts. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews, and investigations.

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(h) Charity Care

The Authority provides care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. Because the Authority does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue.

(i) Net Position

Net position of the Authority is classified into the following components:

- Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by outstanding balances of any borrowings used to finance the purchase or construction of those assets.
- Restricted under indenture agreements represents resources deposited with trustees as required by bond indentures or other debt agreements.
- Restricted for capital projects and major programs represents resources that the Authority is legally or contractually obligated to spend in accordance with restrictions imposed by external parties.
- Unrestricted represents remaining net position that does not meet either of the above definitions.

When the Authority has both restricted and unrestricted resources available to finance a particular program, it is the Authority's policy to use restricted resources before unrestricted resources.

(j) Costs of Borrowing

The deferred accounting loss on refunding is being amortized over the terms of the related indebtedness using the effective interest method. Refunding losses are classified as deferred outflows of resources on the Statement of Net Position. Costs of issuance are expensed in the period incurred.

Interest cost is capitalized on qualified construction expenditures, net of income earned on related assets, as a component of the cost of the related projects. For qualifying capital projects that are not financed with specific proceeds of tax-exempt debt, the Authority capitalizes interest cost on such projects based on accumulated expenditures and a weighted average borrowing rate.

(k) Income Taxes

The Authority is a political subdivision of the State of South Carolina and is treated as a governmental entity for tax purposes. Additionally, the Authority has received its determination letter from the Internal Revenue Service, indicating that it is exempt from income tax under Section 501(a) of the Internal Revenue Code, as an organization described in Section 501(c)(3). As such, the Authority is not generally subject to federal or state income taxes. However, the Authority remains subject to income taxes on any net income that is derived from a trade or business, regularly carried on and not in furtherance of the purpose for which it was granted exemption. No income tax provision has been recorded. If there is net income from any unrelated trade or business, such provision, in the opinion of management, is not material to the financial statements taken as a whole.

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(l) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires that management make estimates and assumptions affecting the reported amounts of assets, liabilities, revenues and expenses, as well as disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Significant items subject to such estimates include the allowances for uncollectible accounts and contractual adjustments for patient receivables, depreciation and amortization, liability for incurred but not reported claims under the self-insured health plan, and estimated third-party payor settlements. In particular, laws and regulations governing the Medicare and Medicaid programs are extremely complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates related to these programs will change by a material amount in the near term.

(m) Recent Accounting Pronouncements

GASB Statement No. 72, *Fair Value Measurement and Application*, was issued in February 2015. This Statement addresses accounting and financial reporting issues related to fair value measurements and provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. The Authority implemented GASB Statement No. 72 in fiscal year 2016 and there was no impact on the financial statements beyond the additional disclosures added to note 2.

GASB Statement No. 75, *Accounting and Reporting for Postemployment Benefits Other than Pensions*, was issued in June 2015. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). The scope of this Statement addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specified criteria and for employers whose employees are provided with defined contribution OPEB. This Statement is effective for the Authority's fiscal year 2018.

GASB Statement No. 78, *Pensions Provided Through Certain Multiple-Employer Defined Benefit Pension Plans*, was issued in December 2015. This Statement amends the scope and applicability of Statement 68 to exclude pensions provided to employees of state or local governmental employers through a cost-sharing multiple-employer defined benefit pension plan that (1) is not a state or local governmental pension plan, (2) is used to provide defined benefit pensions both to employees of state or local governmental employers and to employees of employers that are not state or local governmental employers, and (3) has no predominant state or local governmental employer (either individually or collectively with other state or local governmental employers that provide pensions

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through the pension plan). This Statement establishes requirements for recognition and measurement of pension expense, expenditures, and liabilities; note disclosures; and required supplementary information for pensions that have the characteristics described above. GASB Statement No. 78 is effective for the Authority's fiscal year 2017 and is not expected to have an impact as the Authority's pensions are covered by GASB Statement No. 68 (note 11).

GASB Statement No. 82, *An Amendment of GASB Statements No. 67, No. 68 and No 73*, was issued in March 2016. This Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. GASB Statement No. 82 is effective for the Authority's fiscal year 2017.

The Authority is in the process of evaluating the impact of GASB Statements No. 75, 78, 82 and other recent accounting pronouncements on the Authority's financial statements.

(2) Cash, Cash Equivalents and Investments

The Authority's cash balance at June 30, 2016 is as follows:

Insured (FDIC and SIPC)	\$ 759,972
Uninsured, uncollateralized, or collateralized by securities held by the pledging institution or by its trust department or agent in other than the Authority's name	<u>153,194,299</u>
Total	<u>\$ 153,954,271</u>
Carrying amount (cash and cash equivalents)	\$ 147,985,078

A summary of investments at June 30, 2016 is as follows:

	Fair value	Percentage	Maturities	Interest rate	Credit rating
Cash	\$ 26,458,625	39.2%	N/A	N/A	N/A
Fixed-income securities:					
U.S. Treasury Note/Bond	4,579,580	6.8	4/30/2017	0.9%	Aaa
Federal National Mortgage Association	16,706,549	24.8	11/26/2027-12/27/2027	2.5%	AA+
Federal Home Loan Bank	9,625,925	14.3	03/10/2017-4/25/2018	0.9%-1.1%	Aaa
Freddie Mac	10,042,790	14.9	7/28/2017	1.0%	Aaa
	<u>\$ 67,413,469</u>				

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset:

- Level 1 inputs are quoted prices in active markets for identical assets;
- Level 2 inputs are significant other observable inputs;

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- Level 3 inputs are significant unobservable inputs.

A summary of investments within the fair value hierarchy as of June 30, 2016 is as follows:

	Investments by fair value level	Fair value measurements		
		Level 1	Level 2	Level 3
Fixed-income securities:				
U.S. Treasury Note Bond	\$ 4,579,580	4,579,580	—	—
Federal National Mortgage Association	16,706,549	—	16,706,549	—
Federal Home Loan Bank	9,625,925	—	9,625,925	—
Freddie Mac	10,042,790	10,042,790	—	—
	<u>\$ 40,954,844</u>	<u>14,622,370</u>	<u>26,332,474</u>	<u>—</u>

The Authority's investment strategy has been developed to, among other things, ensure that the investment portfolio remains in compliance with the investments deemed permissible under the indenture agreement described in note 6. There is no formalized deposit or investment policy that otherwise addresses credit risk, interest rate risk, foreign currency risk or how investment income may be spent.

Guidelines for fixed-income investments and cash equivalents are as follows:

1. Direct obligations of the United States (U.S.) government, securities issued by federal agencies backed by the full faith and credit of the U.S. government, and securities issued by certain nonfull faith and credit federal agencies.
2. Cash, money market funds and certificates of deposit that are appropriately collateralized, insured or issued by investment grade financial institutions.
3. Investment agreements, including guaranteed investment contracts, commercial papers, repurchase agreements and other securities are subject to credit rating minimums, acceptance by related insurers, and other provisions, as described in the indenture agreements.

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Except for restrictions imposed by the aforementioned indenture agreement, there are no limits on the amount the Authority may invest in any one issuer. As of June 30, 2016, 24.8% of the Authority's investments are in notes issued by the Federal National Mortgage Association.

Investment income is comprised of the following for the year ended June 30, 2016:

Dividend and interest income	\$ 1,167,829
Realized and unrealized gain on investments	<u>3,209,614</u>
	<u>\$ 4,377,443</u>

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(3) Other Current Assets

The composition of other current assets at June 30, 2016 is as follows:

Prepaid expenses	\$ 11,848,540
Inventories	27,168,524
Amounts due from the South Carolina Medicaid Disproportionate Share Hospital program (note 8)	11,491,860
Amounts due from the South Carolina Medicaid HMO Graduate Medical Education program	10,299,665
Other	3,880,690
	<u>\$ 64,689,279</u>

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(4) Capital Assets

Capital assets and related activity for the year ended June 30, 2016 consisted of the following:

	Beginning balance	Increases	Decreases	Ending balance
Capital assets not being depreciated:				
Land	\$ 6,092,725	—	—	6,092,725
Assets not in service	2,662,311	5,709,689	(6,598,003)	1,773,997
Construction in progress	17,790,404	35,609,827	(30,082,444)	23,317,787
Total capital assets not being depreciated	<u>26,545,440</u>	<u>41,319,516</u>	<u>(36,680,447)</u>	<u>31,184,509</u>
Capital assets being depreciated:				
Buildings, improvements and fixed equipment	728,441,335	27,596,238	(13,574,158)	742,463,415
Machinery and equipment	243,377,274	39,272,803	(22,039,778)	260,610,299
Software	48,456,453	2,775,617	—	51,232,070
Vehicles	2,049,920	250,151	(176,805)	2,123,266
Total capital assets being depreciated	<u>1,022,324,982</u>	<u>69,894,809</u>	<u>(35,790,741)</u>	<u>1,056,429,050</u>
Less accumulated depreciation for:				
Buildings, improvements and fixed equipment	(346,535,706)	(34,359,766)	7,689,149	(373,206,323)
Machinery and equipment	(175,833,488)	(20,010,323)	20,595,922	(175,247,889)
Software	(15,347,803)	(9,437,875)	—	(24,785,678)
Vehicles	(1,955,000)	(79,188)	176,805	(1,857,383)
Total accumulated depreciation	<u>(539,671,997)</u>	<u>(63,887,152)</u>	<u>28,461,876</u>	<u>(575,097,273)</u>
Capital assets being depreciated, net	<u>482,652,985</u>	<u>6,007,657</u>	<u>(7,328,865)</u>	<u>481,331,777</u>
Capital assets, net	<u>\$ 509,198,425</u>	<u>47,327,173</u>	<u>(44,009,312)</u>	<u>512,516,286</u>

Construction in progress at June 30, 2016 consists of costs associated with various renovation projects in process at existing hospital facilities and costs for the new Shawn Jenkins Children's Hospital & Pearl Tourville Women's Pavilion (CHWP). Construction in progress projects are generally scheduled for completion in fiscal years 2017, 2018, and 2019. Remaining costs to complete these projects are estimated to total approximately \$388.0 million and include estimated costs for construction of CHWP.

Interest cost capitalized on qualifying assets was approximately \$0.4 million for the year ended June 30, 2016.

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(5) Deferred Outflows

The composition of deferred outflows at June 30, 2016 is as follows:

Deferred loss on refunding GNMA MBS Series 2012	\$ 31,088,401
Deferred loss on refunding CEP Series 2013	1,754,174
Pension Plans	<u>65,514,039</u>
Total	<u>\$ 98,356,614</u>

(6) Long-Term Debt

A summary of long-term debt at June 30, 2016 is as follows:

GNMA MBS, 2012 Refinancing of Series 2004 Bonds, Series 2012, payable in varying amounts through 2033, with monthly interest payments at the rate of 2.94%	\$ 314,047,788
MUHA Central Energy Plant, 2013 Refinancing of MUFC Central Energy Plant, LLC Economic Development Revenue Bonds, Series 2013, payable in varying amounts through 2032, with monthly interest payments at the rate of 3.85%	42,691,056
Note Payable to Wells Fargo Bank, for conservation equipment, payable in varying amounts through March 2023, with quarterly interest payments at the rate of 3.50%	<u>9,778,649</u>
	366,517,493
Less: current installments	<u>17,867,367</u>
	<u>\$ 348,650,126</u>

In December 2004, the Authority issued a total of \$422.1 million of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004) at a premium of \$11.4 million. The net bond proceeds as well as monies from the Series 2002A Hospital Facilities Refunding Revenue Bonds (2002A Refunding Bonds) trusteed account were used to defease all amounts outstanding under the prior Series 2002A bonds and a promissory note payable to Charleston County, and fund construction of new replacement hospital facilities located in Charleston, South Carolina.

With respect to the 2002A Refunding Bonds defeasance, funds were deposited in an irrevocable trust to provide for the debt service of the bonds payable and, therefore, all related amounts have been removed from the Authority's Statement of Net Position. The deposits in trust have been or will be used to pay all scheduled principal and interest payments on the 2002A Refunding Bonds through 2032.

The 2004 refunding transaction resulted in an accounting loss totaling approximately \$15.5million, which has been deferred and is being amortized using the effective interest method through 2032. The deferred loss is related entirely to the in-substance defeasance of bonds payable.

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The Authority entered into a six month revenue anticipation note with Branch Banking and Trust Company (BB&T) on August 20, 2013 that expired February 20, 2014. This revenue anticipation note was renewed March 14, 2014 and expired September 14, 2014. The Authority entered into a similar contract with BB&T in August 2014 that renewed March 19, 2015, expired September 19, 2015 and was not renewed. There was no activity on this note in fiscal year 2016.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61.0 million of Economic Development Revenue Bonds, CEP Series 2004 for the benefit of the Authority. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a Loan Agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156-bed Phase I Authority project. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the Bonds. On March 15, 2007, the construction of the Central Energy Plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59.4 million bonds into Indexed Floating Rate Bonds to reduce cost of capital and annual debt service payments.

On December 19, 2012, the Authority refinanced the CEP 2004 Series bonds with Government National Mortgage Agency (GNMA) mortgage-backed securities (MBS) (Series 2012). The refinance was done to substantially lower the Authority's interest rate from 5.18% and 5.14% on the 2004 Series bonds in fiscal 2013 to a 2.94% fixed rate on the Series 2012. At the time of refinancing, the long-term debt obligation was reduced by debt service reserve and other funds which became available to make additional principal payments. The net proceeds of \$360.4 million (after payment of \$1.1 million of issuance costs plus an additional \$49.9 million of 2004 Series debt service fund monies), were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2004 Series bonds. The advance refunding of the 2004 Series bonds resulted in an economic gain of \$1.0 million along with reducing total debt service payments over the next 20 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations on additional indebtedness.

In April 2013, the Authority entered into a \$13.8 million equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. The terms are 10 years with an interest rate of 3.50%. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

On December 30, 2013, the Authority refinanced the 2004 MUFC Central Energy Plant, LLC Economic Development Revenue Bonds (CEP Series 2004 bonds) with GNMA MBS (Series 2013). The refinance was done to lower the Authority's effective interest rate from 5.75% on the 2004 Series to a 3.85% fixed rate on the Series 2013. The net proceeds of \$47.4 million (after payment of \$1.3 million of issuance costs) were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on

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the CEP Series 2004 bonds. As a result, the CEP Series 2004 bonds are considered to be defeased and the liability for those bonds has been removed from the Statement of Net Position. The advance refunding of the CEP Series 2004 bonds resulted in an economic gain of \$2.4 million along with reducing total debt service payments over the next 18 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations on additional indebtedness.

The Authority is in the process of structuring a transaction to facilitate the issuance of approximately \$316.0 million GNMA MBS for the purpose of financing the construction of the Phase II CHWP and paying associated transaction costs. The Authority has received a commitment for Insurance Advances letter and anticipates issuing the new securities in the fall of 2016.

Debt service requirements associated with the Authority's outstanding bonds are as follows:

	Series 2013		Series 2012		Total
	Principal	Interest	Principal	Interest	
Fiscal year:					
2017	\$ 2,098,708	1,606,829	14,455,775	9,039,246	27,200,558
2018	2,180,949	1,524,588	14,886,549	8,608,472	27,200,558
2019	2,266,413	1,439,124	15,330,159	8,164,862	27,200,558
2020	2,355,226	1,350,311	15,786,989	7,708,032	27,200,558
2021	2,447,520	1,258,017	16,257,432	7,237,589	27,200,558
2022	2,543,430	1,162,107	16,741,894	6,753,127	27,200,558
2023	2,643,099	1,062,438	17,240,793	6,254,228	27,200,558
2024	2,746,673	958,864	17,754,558	5,740,463	27,200,558
2025	2,854,306	851,231	18,283,634	5,211,387	27,200,558
2026	2,966,157	739,380	18,828,475	4,666,546	27,200,558
2027	3,082,390	623,146	19,389,553	4,105,469	27,200,558
2028	3,203,179	502,358	19,967,351	3,527,670	27,200,558
2029	3,328,701	376,836	20,562,366	2,932,655	27,200,558
2030	3,459,142	246,395	21,175,112	2,319,909	27,200,558
2031	3,594,694	110,843	21,806,119	1,688,903	27,200,559
2032	920,469	5,912	22,455,928	1,039,093	24,421,402
2033	—	—	23,125,101	369,915	23,495,016
Total	\$ 42,691,056	13,818,379	314,047,788	85,367,566	455,924,789

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Debt service requirements associated with the Authority's note payable are as follows:

Fiscal year:	Wells Fargo		Total
	Principal	Interest	
2017	\$ 1,312,884	325,146	1,638,030
2018	1,359,441	278,589	1,638,030
2019	1,407,650	230,380	1,638,030
2020	1,457,568	180,462	1,638,030
2021	1,509,257	128,773	1,638,030
2022	1,562,778	75,252	1,638,030
2023	1,169,071	20,177	1,189,248
Total	\$ 9,778,649	1,238,779	11,017,428

A schedule of changes in the Authority's long-term debt and capital lease obligations for the year ended June 30, 2016 is as follows:

	Date of issuance	Beginning balance	Additions	Refunded and/or retired	Ending balance	Due within one year
Capital leases (note 14)	Various	\$ 2,562,299	13,482,256	(1,777,595)	14,266,960	3,593,462
Series 2012	12/19/2012	328,085,255	—	(14,037,467)	314,047,788	14,455,775
Wells Fargo	4/25/2013	11,046,929	—	(1,268,280)	9,778,649	1,312,884
Series 2013	12/30/2013	44,710,624	—	(2,019,568)	42,691,056	2,098,708
		\$ 386,405,107	13,482,256	(19,102,910)	380,784,453	21,460,829

(7) **Other Accrued Expenses**

The composition of other accrued expenses at June 30, 2016 is as follows:

Accrued interest	\$ 797,938
Amounts due to contractors	422,426
Other	4,196,436
	\$ 5,416,800

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(8) Net Patient Service Revenue

The Authority has agreements with governmental and other third-party payors that provide for reimbursement to the Authority at amounts different from its established rates. Contractual adjustments under third-party reimbursement programs represent the difference between the Authority's billings at established rates for services and amounts reimbursed by third-party payors. A summary of the basis of reimbursement with major third-party payors is as follows:

- Medicare – Substantially all inpatient acute care and outpatient services rendered to Medicare program beneficiaries are paid at prospectively determined rates. These rates vary according to patient classification systems that are based on clinical, diagnostic, and other factors. Additionally, the Authority is reimbursed for both its direct and indirect medical education costs, based principally on per-resident prospective payment amounts and certain adjustments to prospective rate-per-discharge operating reimbursement payments. The Authority generally is reimbursed for retroactively determined items at tentative rates, with final settlement determined after submission of annual cost reports by the Authority and audits by the Medicare fiscal intermediary. The Authority's cost reports have been audited and initially settled for all fiscal years through 2008, except for 2006.

Revenue from the Medicare program accounted for approximately 32.2% of the Authority's net patient service revenue for the fiscal year ended June 30, 2016.

- Medicaid – Inpatient and outpatient services rendered to most Medicaid program beneficiaries are reimbursed based upon prospective reimbursement methodologies.

The Authority participates in the Medicaid Disproportionate Share Hospital program (the DSH Program) available to certain qualifying hospitals in South Carolina. The net reimbursement benefits associated with this program totaled approximately \$48.0 million in fiscal 2016, and are recognized as reductions in related contractual adjustments in net patient service revenue on the statement of revenues, expenses and changes in net position. There can be no assurance that the Authority will continue to qualify for future participation in this program or that the program will not ultimately be discontinued or materially modified. Any material reduction in such funds has a correspondingly material adverse effect on the Authority's operations.

During the Authority's fiscal 2008, the State of South Carolina reconfigured certain terms and conditions of the DSH Program for participating providers, including the Authority. Because of associated funding deferrals and other changes which impacted the timing of historical net revenue and cash flows to the Authority under the program, the Authority recognized a receivable totaling approximately \$1.5 million at June 30, 2016, in recognition of program net revenue earned but not received in fiscal 2016.

In fiscal 2016, the Medicaid fiscal intermediary performed a cost settlement of the DSH program funding provided to the Authority in year 2012. The cost settlement identified an underpayment to the Authority of \$10.0 million, and therefore the Authority recorded that amount as a receivable and related incremental contractual adjustment during fiscal 2016.

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In fiscal 2016, the Authority received from the Medicaid fiscal intermediary notices of retrospective cost settlements related to the Medicaid program funding for fiscal years 2009 and 2011. The Authority recognized an associated accrual for Medicaid underpayment totaling approximately \$2.3 million.

During fiscal 2013, the Authority received notification that South Carolina Department of Health and Human Services (SCDHHS) will no longer retrospectively cost settle Medicaid inpatient and outpatient hospital services effective November 1, 2012.

Overall, revenue from the Medicaid program, including net disproportionate share funding and cost settlement liabilities described above, accounted for approximately 23.4% of the Authority's net patient service revenue for the year ended June 30, 2016.

The Authority has also entered into payment arrangements with various managed care organizations, commercial insurance carriers, and preferred provider organizations. Payment methodologies under these agreements include prospectively determined rates per discharge, discounts from established rates, and prospectively determined per diem rates.

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered. Associated estimates change as a result of confirming events such as completion of audits of the Authority's cost reports by third-party payors or receipt of final settlement payments from third-party payors. Net patient service revenue was increased by approximately \$0.3 million for changes in prior year estimates of amounts receivable from or payable to third-party payors during the year ended June 30, 2016.

The composition of net patient service revenue for the year ending June 30, 2016 is as follows:

Gross patient service revenue	\$ 3,608,447,093
Less:	
Provision for contractual and other adjustments	2,178,439,512
Provision for uncollectible accounts	128,683,666
Net patient service revenue	<u>\$ 1,301,323,915</u>

The Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted as part of the American Recovery and Reinvestment Act of 2009 and signed into law in February 2009. In the context of the HITECH Act, the Authority must implement a certified Electronic Health Record (EHR) system in an effort to promote the adoption and "meaningful use" of health information technology (HIT). The HITECH Act includes significant monetary incentives and payment penalties meant to encourage the adoption of EHR technology. The Authority implemented a certified Electronic Health Record (EHR) system as of July 1, 2014 enabling its compliance with the meaningful use objectives mandated in the HITECH legislation. The Authority collected \$1.6 million in fiscal 2016, in incentive payments under the South Carolina Medicaid EHR incentive payment program related to its efforts at implementing certified EHR technology. The incentive payment is included in other revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

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(9) Service to the Community

The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Board of Trustees has established policies under which the Authority provides care to needy members of its communities. These policies include discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$110.5 million (as measured by established charges) were provided without charge (and thus not recognized in gross patient service revenue) during fiscal 2016.

The Authority also participates in the Medicare and Medicaid programs. Under these programs, the Authority provides care to patients at payment rates that are determined by the federal and state governments, regardless of actual cost. The Authority wrote off discounts from established charges related to these programs totaling approximately \$1.6 billion in fiscal 2016.

In addition to community service directly associated with providing Authority-based care, the Authority serves the community in other ways. For example:

- In keeping with the MUSC mission to improve health and maximize quality of life through education, research and patient care, the MUSC Urban Farm was developed, a half-acre educational garden with the goal of creating opportunities for our community to learn how to eat for health. The urban farm is designed to be a living classroom where students, faculty, staff and the community come together to explore the connection between food and health through hands-on learning about the many varieties of vegetables, fruits and herbs grown in South Carolina. Participants experience a unique opportunity to engage in hands-on learning about sustainable urban agriculture and are educated on the value of incorporating vegetables into their diets through cooking and nutrition lessons. The urban farm is a joint program between the Authority and the University and there were 190 classes in fiscal 2016.
- In 2015, the Authority and Sodexo partnered to address food insecurity and the rising cost of healthcare to become the first hospital in the southeast to offer the USDA's summer food service program, Kids Eat Free. In 2016, the program expanded to 7 days a week in four locations and included Saturdays in the MUSC Urban Farm. In fiscal 2016, 3,271 children participated in the Kids Eat Free program.

The Authority and East Cooper Meals on Wheels (ECMOW) partnered to create the Blue Apron program, where physicians and case managers refer patients who are not able to shop or prepare meals for themselves to ECMOW for free meal delivery. This program addresses food insecurity and contributes to better health outcomes and fewer hospital readmissions. In fiscal 2016, 93 patients participated in the Blue Apron program and received 1,195 meal deliveries.

- The Authority and the University, in partnership with the City of Charleston, created the Adventure Out program to encourage community members to adopt a physically active lifestyle. This program is an outdoor fitness campaign that encourages residents to visit parks throughout the city where MUSC fitness instructors teach a free exercise class each week. In fiscal 2016, there were 39 free exercise classes taught via the Adventure Out program.

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A fitness park was installed on campus next to the MUSC Urban Farm where a community walk is hosted along the medical mile walking trail. This walking trail is designated a smoke free medical district and was created in partnership with the City of Charleston. In fiscal 2016, there were 150 participants in the medical mile community walk.

- The Authority, in conjunction with the University, also organizes employee participation in the Trident United Way. In fiscal 2016, Authority and University employees pledged over \$108,000 to help support this organization.

While the Authority has estimated the cost of many of its community efforts to serve its broadly defined service area, management and the Board of Trustees believe that such costs represent only one facet of the many ways the Authority serves the citizens of South Carolina.

(10) Employee Benefit Plans

The Authority participates in a number of employee benefit plans sponsored by the state of South Carolina, and substantially all of the Authority's employees are covered by such plans. The following generally describes the benefits associated with the most significant plans, and the Authority's relevant participation:

- The Authority and substantially all of its employees contribute to the South Carolina Retirement System (SCRS), which sponsors a cost-sharing, multiple-employer defined benefit pension plan. SCRS provides retirement, disability and other insurance benefits to plan members and beneficiaries. For more details on the SCRS plan see footnote 11. SCRS issues a publicly available financial report that includes financial statements and required supplementary information, which can be obtained by writing SCRS's Retirement Division at 202 Arbor Lake Drive, Columbia, South Carolina 29223 or by calling (803) 737-6800.
- SCRS participants are required to contribute 8.16% of their annual covered salary to the plan and the Authority contributes at an actuarially determined rate (currently 16.39% of annual covered payroll). The Authority contributed approximately \$46.1 million (11.06% statutorily required contribution plus 5.33% retiree insurance surcharge) to SCRS during fiscal 2016, equal to the required contributions. The Authority has no other liability under this plan other than to make its required contributions, which are fully funded through June 30, 2016. Effective July 1, 2016, the employee contribution rate increases from 8.16% to 8.66% and the employer contribution rate increases from 16.39% to 16.89%.
- The Authority's SCRS funding described above also funds the "pay-as-you-go" component of certain postretirement insurance benefits provided by the SCRS plan. The actual cost of providing such benefits to Authority retirees is not available. Nevertheless, as noted above, the Authority has no explicit liability associated with the postretirement health and life benefits component of the plan beyond its fully funded contributions obligation.
- Authority employees are eligible to participate in a state-sponsored multiemployer deferred compensation plan (SC Deferred Compensation Program) which provides for individual employee contributory trust accounts. The Authority does not contribute to this plan and has no liability associated with employee amounts deferred under the plan.

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Effective July 1, 2002, the Authority established and began sponsoring a profit sharing plan and trust titled the Special Healthcare Alternative Retirement Plan (SHARP). The Sharp is qualified under Section 401(a) of the Internal Revenue Code. Certain employees, as defined in SHARP, are eligible to participate at the commencement of employment. Contributions by the Authority to SHARP are discretionary and vest ratably over four years after two years of service. Contributions by the Authority in fiscal 2016 totaled approximately \$794 thousand.

The Authority also independently sponsors a tax-advantaged defined contribution plan for its employees (The MUSC 403B plan). Substantially all Authority employees are eligible to participate in this plan. Employees may contribute up to \$24 thousand of eligible compensation. The Authority does not match employee contributions.

(11) Pension Plans

The South Carolina Public Employee Benefit Authority (PEBA), which was created July 1, 2012, administers the various retirement systems and retirement programs managed by its Retirement Division. PEBA has an 11-member Board of Directors, appointed by the Governor and General Assembly leadership, which serves as co-trustee and co-fiduciary of the systems and the trust funds. By law, the Budget and Control Board, which consists of five elected officials, also reviews certain PEBA Board decisions regarding the funding of the South Carolina Retirement Systems (Systems) and serves as a co-trustee of the Systems in conducting that review.

For purposes of measuring the net pension liability, deferred outflows and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Systems and additions to/deductions from the Systems' fiduciary net position have been determined on the accrual basis of accounting as they are reported by the Systems in accordance with generally accepted accounting principles (GAAP). For this purpose, revenues are recognized when earned and expenses are recognized when incurred. Benefit and refund expenses are recognized when due and payable in accordance with the terms of the plan. Investments are reported at fair value.

PEBA issues a Comprehensive Annual Financial Report (CAFR) containing financial statements and required supplementary information for the Systems' Pension Trust Funds. The CAFR is publicly available through the Retirement Benefits' link on PEBA's website at www.peba.sc.gov, or a copy may be obtained by submitting a request to PEBA, PO Box 11960, Columbia, SC 29211-1960. PEBA is considered a division of the primary government of the state of South Carolina, and therefore, retirement trust fund financial information is also included in the comprehensive annual financial report of the state.

Plan Description

The South Carolina Retirement System (SCRS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1945, pursuant to the provisions of Section 9-1-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for employees of the state, its public school districts, and political subdivisions.

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The State Optional Retirement Program (ORP) is a defined contribution plan that is offered as an alternative to certain newly hired state, public school, and higher education employees. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers.

The South Carolina Police Officers Retirement System (PORS), a costsharing multiple-employer defined benefit pension plan, was established effective July 1, 1962, pursuant to the provisions of Section 9-11-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for police officers and firemen of the state and its political subdivisions.

Membership

Membership requirements are prescribed in Title 9 of the South Carolina Code of Laws. A brief summary of the requirements under each system is presented below.

- **SCRS** – Generally, all employees of covered employers are required to participate in and contribute to the system as a condition of employment. This plan covers general employees and teachers and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election. An employee member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.
- **State ORP** – As an alternative to membership in SCRS, newly hired state, public school, and higher education employees and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election have the option to participate in the State ORP. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers. PEBA assumes no liability for State ORP benefits. Rather, the benefits are the liability of the investment providers. For this reason, State ORP programs are not part of the retirement systems' trust funds for financial statement purposes. Employee and employer contributions to the State ORP are at the same rates as SCRS. A direct remittance is required from the employers to the member's account with investment providers for the employee contribution and a portion of the employer contribution (5%). A direct remittance is also required to SCRS for the remaining portion of the employer contribution and an incidental death benefit contribution, if applicable, which is retained by SCRS.
- **PORS** – To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; or to serve as a peace officer employed by the Department of Corrections, the Department of Juvenile Justice, or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute. An employee member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

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Benefits

Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a legislative change in the code of laws. Key elements of the benefit calculation include the benefit multiplier, years of service, and average final compensation. A brief summary of benefit terms for each system is presented below.

- SCRS – A Class Two member who has separated from service with at least five or more years of earned service is eligible for a monthly pension at age 65 or with 28 years credited service regardless of age. A member may elect early retirement with reduced pension benefits payable at age 55 with 25 years of service credit. A Class Three member who has separated from service with at least eight or more years of earned service is eligible for a monthly pension upon satisfying the Rule of 90 requirement that the total of the member's age and the member's creditable service equals at least 90 years. Both Class Two and Class Three members are eligible to receive a reduced deferred annuity at age 60 if they satisfy the five-or eight-year earned service requirement, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program.

The annual retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase. Members who retire under the early retirement provisions at age 55 with 25 years of service are not eligible for the benefit adjustment until the second July 1 after reaching age 60 or the second July 1 after the date they would have had 28 years of service credit had they not retired.

- PORS – A Class Two member who has separated from service with at least five or more years of earned service is eligible for a monthly pension at age 55 or with 25 years of service regardless of age. A Class Three member who has separated from service with at least eight or more years of earned service is eligible for a monthly pension at age 55 or with 27 years of service regardless of age. Both Class Two and Class Three members are eligible to receive a deferred annuity at age 55 with five or eight years of earned service, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program. Accidental death benefits are also provided upon the death of an active member working for a covered employer whose death was a natural and proximate result of an injury incurred while in the performance of duty.

The retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase.

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Contributions

Contributions are prescribed in Title 9 of the South Carolina Code of Laws. Upon recommendation by the actuary in the annual actuarial valuation, the PEBA Board may adopt and present to the Budget and Control Board for approval an increase in the SCRS and PORS employer and employee contribution rates, but any such increase may not result in a differential between the employee and total employer contribution rate that exceeds 2.9% of earnable compensation for SCRS and 5% for PORS. An increase in the contribution rates adopted by the Board may not provide for an increase of more than one-half of one percent in any one year. If the scheduled employee and employer contributions provided in statute or the rates last adopted by the Board are insufficient to maintain a thirty year amortization schedule of the unfunded liabilities of the plans, the Board shall increase the contribution rates in equal percentage amounts for the employer and employee as necessary to maintain the thirty-year amortization period; and, this increase is not limited to one-half of one percent per year.

- Required employee contribution rates¹ for fiscal year 2015-2016 are as follows:

SCRS:	
Employee Class Two	8.16%
Employee Class Three	8.16
State ORP	8.16%
PORS:	
Employee Class Two	8.74%
Employee Class Three	8.74

- Required employer contribution rates¹ for fiscal year 2015-2016 are as follows:

SCRS:	
Employer Class Two	10.91%
Employer Class Three	10.91
Employer Incidental Death Benefit	0.15
State ORP:	
Employer Contribution ²	10.91%
Employer Incidental Death Benefit	0.15
PORS:	
Employer Class Two	13.44%
Employer Class Three	13.44
Employer Incidental Death Benefit	0.20
Employer Accidental Death Program	0.20

¹ Calculated on earnable compensation as defined in Title 9 of the South Carolina Code of Laws.

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- ² Of this employer contribution, 5% of earnable compensation must be remitted by the employer directly to the ORP vendor to be allocated to the member's account with the remainder of the employer contribution remitted to the SCRS.

Allocation of Pension Amounts

The Authority's proportionate share of pension amounts was calculated on the basis of historical employer contributions. Although GASB 68 encourages the use of the employer's projected long-term contribution effort to the retirement plan, allocating on the basis of historical employer contributions is considered acceptable. Employer contributions recognized by the Systems that are not representative of future contribution effort are excluded in the determination of employers' proportionate shares. Examples of employer contributions not representative of future contribution efforts are contributions towards the purchase of employee service and employer contributions paid by employees in connection with early retirement.

The following table provides the employer contributions used in the determination of employers' proportionate shares of collective pension amounts reported in the Schedule of Employer Allocations.

	<u>SCRS</u>	<u>PORS</u>
The Authority's proportionate share of contributions for the fiscal year ended June 30, 2015	\$ 34,516,724	364,104
The Authority's allocation percentage of proportionate shares of collective pension amounts - June 30, 2015 measurement date	3.377349%	0.21917%

Net Pension Liability

The net pension liability of each defined benefit pension plan was determined based on the July 1, 2014 actuarial valuations, as adopted by the PEBA Board and Budget and Control Board, which utilized membership data as of July 1, 2014. Information included in the following schedules is based on the certification provided by PEBA's consulting actuary, Gabriel, Roeder, Smith and Company.

The net pension liability (NPL) is calculated separately for each system and represents that particular system's total pension liability determined in accordance with GASB No. 67, *Financial Reporting for Pension Plans - an amendment of GASB Statement No. 25*, less that system's fiduciary net position. As of June 30, 2015, NPL amounts for SCRS and PORS and the Authority's proportionate share are as follows:

<u>System</u>	<u>Total pension liability</u>	<u>Plan fiduciary net position</u>	<u>Collective net pension liability (asset)</u>	<u>The authority's portion of collective net pension liability</u>	<u>The authority's proportioned share of net pension liability</u>
SCRS	\$ 44,097,310,230	25,131,828,101	18,965,482,129	3.377349%	\$ 640,530,521
PORS	6,151,321,222	3,971,824,838	2,179,496,384	0.21917%	4,776,715

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For the year ended June 30, 2016, the Authority recognized pension expense of \$50,378,064 and \$423,151 related to the SCRS and PORS pension plans, respectively.

Actuarial Assumptions and Methods

Actuarial valuations involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Actuarial assumptions and methods used during the annual valuation process are subject to periodic revision, typically with an experience study, as actual results over an extended period of time are compared with past expectations and new estimates are made about the future. South Carolina state statute requires that an actuarial experience study be completed at least once in each five-year period. The last experience study was performed on data through June 30, 2010 and the next experience study, performed on data through June 30, 2015, is currently underway.

The following table provides a summary of the actuarial assumptions and methods used in the July 1, 2014 valuations for SCRS and PORS.

	<u>SCRS</u>	<u>PORS</u>
Actuarial cost method	Entry age normal	Entry age normal
Actuarial assumptions:		
Investment rate of return	7.50%	7.50%
Projected salary increases	3.50% to 12.50% (varies by service) lesser of 1% or \$500 annually	4.0% to 10.0% (varies by service) lesser of 1% or \$500 annually
Benefit adjustments	Annually	Annually
Includes inflation at 2.75%		

The post-retiree mortality assumption is dependent upon the member's job category and gender. This assumption includes base rates which are automatically adjusted for future improvement in mortality using published Scale AA projected from the year 2000. Assumptions used in the July 1, 2014, valuations for SCRS and PORS are as follows:

<u>Former Job Class</u>	<u>Males</u>	<u>Females</u>
Educators	RP-2000 Males (with White Collar adjustment) multiplied by 110%	RP-2000 Females (with White Collar adjustment) multiplied by 95%
General Employees and Members of the General Assembly	RP-2000 Males multiplied by 100%	RP-2000 Females multiplied by 90%
Public Safety and Firefighters	RP-2000 Males (with Blue Collar adjustment) multiplied by 115%	RP-2000 Females (with Blue Collar adjustment) multiplied by 115%

Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments, as used in the July 1, 2014, actuarial valuations, was based upon the 30 year capital market outlook at the end of the fourth quarter 2013, as developed by the Retirement Systems Investment Commission (RSIC) in collaboration with its investment consultant, Aon Hewitt. The long-term expected rate of returns represent assumptions developed using an

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arithmetic building block approach, reflecting observable inflation and interest rate information available in the fixed-income markets as well as Consensus Economics forecasts. Long-term assumptions for other asset classes are based on historical results, current market characteristics, and professional judgment.

The RSIC has exclusive authority to invest and manage the retirement trust funds' assets. As co-fiduciary of the Systems, statutory provisions and governance policies allow the RSIC to operate in a manner consistent with a long-term investment time horizon. The expected returns, along with the expected inflation rate, form the basis for the target asset allocation as adopted by the RSIC for fiscal year 2015. The long-term expected rate of return is produced by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation and is summarized in the table below. For actuarial purposes, the 7.50% assumed annual investment rate of return set in statute and used in the calculation of the total pension liability includes a 4.75% real rate of return and a 2.75% inflation component.

Asset class	Target asset allocation (%)	Expected arithmetic real rate of return (%)	Long term expected portfolio real rate of return (%)
Short term	5.0		
Cash	2.0	1.90	0.04
Short duration	3.0	2.00	0.06
Domestic fixed income	13.0		
Core fixed income	7.0	2.70	0.19
Mixed Credit	6.0	3.80	0.23
Global fixed income	9.0		
Global fixed income	3.0	2.80	0.08
Emerging markets debt	6.0	5.10	0.31
Global public equity	31.0	7.10	2.20
Global tactical asset allocation	10.0	4.90	0.49
Alternatives	32.0		
Hedge funds (low beta)	8.0	4.30	0.34
Private debt	7.0	9.90	0.69
Private equity	9.0	9.90	0.89
Real estate (broad market)	5.0	6.00	0.30
Commodities	3.0	5.90	0.18
Total expected real return	100%		6.00%
Inflation for actuarial purposes			2.75%
Total expected nominal return			8.75%

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Discount Rate

The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that the funding policy specified in the South Carolina State Code of Laws will remain unchanged in future years. Based on those assumptions, each System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity Analysis

The following table presents the sensitivity of the Authority's net pension liability calculated using the discount rate of 7.50%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.50%) or 1.00% higher (8.50%) than the current rate.

**The Authority's Sensitivity of the Net Pension Liability
to Changes in the Discount Rate**

	1.00% Decrease (6.50%)	Current discount rate (7.50%)	1.00% Increase (8.50%)
SCRS	\$ 807,525,960	640,530,521	500,567,112
PORS	6,507,001	4,776,715	3,229,933

Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

Deferred outflows of resources were related to differences between expected and actual experience and contributions made after the measurement date. Deferred inflows of resources were related to differences between projected and actual investment earnings. At June 30, 2016, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred outflows of resources	Deferred inflows of resources
Net differences between expected and actual experience:		
SCRS	\$ 11,380,042	1,145,472
PORS	94,675	—
Changes of assumption:		
SCRS	—	—
PORS	—	—
Net difference between projected and actual earnings on pension plan investments:		
SCRS	4,287,390	—
PORS	52,266	—

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	<u>Deferred outflows of resources</u>	<u>Deferred inflows of resources</u>
Changes in proportion and differences between the Authority's contributions and proportionate share of contributions:		
SCRS	\$ 12,181,311	—
PORS	—	8,111
The Authority's contributions subsequent to the measurement date:		
SCRS	37,143,234	—
PORS	375,121	—
Total	<u>\$ 65,514,039</u>	<u>1,153,583</u>

\$37.5 million reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

	<u>SCRS</u>	<u>PORS</u>
Year ended June 30:		
2016	\$ (6,592,216)	(12,735)
2017	(6,592,216)	(12,735)
2018	(2,683,353)	(8,553)
2019	(10,835,486)	(104,807)
Net balance of deferred outflows/(inflows) of resources	<u>\$ (26,703,271)</u>	<u>(138,830)</u>

Pension Plan Fiduciary Net Position

Detailed information regarding the fiduciary net position of the plans administered by PEBA is available in the separately issued CAFR containing financial statements and required supplementary information for SCRS and PORS. The CAFR of the Pension Trust Funds is publicly available on PEBA's Retirement Benefits' website at www.retirement.sc.gov, or a copy may be obtained by submitting a request to PEBA, PO Box 11960, Columbia, SC 29211-1960.

(12) Business and Credit Concentrations

The Authority provides healthcare services through its inpatient and outpatient care facilities principally located in and around Charleston, South Carolina. The Authority grants credit to patients, substantially all of whom are residents of its service area. The Authority generally does not require collateral or other security in extending credit to patients; however, it routinely obtains assignment of (or is otherwise entitled to receive) patients' benefits payable under their health insurance programs, plans or policies (e.g., Medicare, Medicaid, Blue Cross, and commercial insurance policies).

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The mix of receivables from patients and third-party payors as of June 30, 2016 is as follows:

Blue Cross	\$	13%
Medicare		27
Medicaid		26
Private Insurance/Managed Care		16
Medically Indigent/Self Pay/Other		18
	\$	<u>100%</u>

(13) Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; business interruption; errors and omissions; employee injuries and illness; natural disasters; and professional and general liability claims and judgments. The Authority participates in the South Carolina Insurance Reserve Fund (IRF), which provides coverage for substantially all such risks. The Authority pays premiums to the IRF and effectively receives unlimited (when combined with related recovery limit protections provided by state statutes) occurrence-based coverage for all consequential risks of loss. There has been no change in coverage during the year ended June 30, 2016.

(14) Leases

The Authority has entered into capital lease agreements for the purpose of financing certain equipment acquisitions expiring in various years through 2024. Future minimum lease payments due under capital leases, by year and in the aggregate, follow:

2017	\$	3,989,521
2018		3,877,651
2019		3,233,648
2020		1,489,596
2021		1,139,049
Thereafter		<u>1,644,800</u>
		15,374,265
Less interest at rates from 0% to 4.83%		<u>1,107,305</u>
Present value of future minimum lease payments		14,266,960
Less current installments		<u>3,593,462</u>
Capital lease obligations, excluding current installments	\$	<u>10,673,498</u>

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The Authority also enters into operating leases for various capital assets expiring in various years through 2039. Future minimum lease payments due under noncancelable operating lease agreements with third parties are as follows:

2017	\$ 19,592,768
2018	12,714,896
2019	10,856,831
2020	7,068,656
2021	5,263,617
2022-2026	12,338,236
2027-2031	2,449,620
2032-2036	704,115
2037-2039	492,880
Total	<u>\$ 71,481,619</u>

Rental expense for all operating leases was approximately \$25.3 million in fiscal 2016 and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position. Management expects that most lease agreements will be replaced, as they expire, with similar agreements.

(15) Related Party Transactions

The following describes the Authority's material agreements with related parties:

(a) The University

Under the terms of various agreements related to the Authority's establishment as a distinct healthcare system, the University provides a variety of shared services for the Authority, including facilities oversight, administrative and financial services, and other types of general operating support. The Authority also leases certain facilities space from the University under the Reciprocal Space Agreement. The cost of these services and leases totaled approximately \$59.2 million for fiscal 2016, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority also reimburses the University for certain professional clinical services provided by interns and residents receiving medical education at the University. The cost of these services totaled approximately \$52.2 million for fiscal 2016, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

In March 2010, the Internal Revenue Service (IRS) published its administrative determination that medical residents are exempt from Federal Insurance Contributions Act (FICA) payroll taxes based on "the student exception" for tax periods ending before April 1, 2005, when new IRS regulations went into effect that otherwise address this matter. The University timely filed a protective claim with the IRS for medical resident FICA taxes paid during the period from January 1, 1996 to March 31, 2005, and was expecting a refund of those taxes from the IRS. The University estimated the refund amount

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at \$13.0 million, plus overpayment interest of \$11.7 million, for a total estimated refund amount of \$24.7 million. Given that the Authority reimbursed the University for residents' salaries (including FICA taxes) during the period subject to the refund of the FICA taxes, the estimated refund amount is recoverable by the Authority from the University upon collection and was, therefore, recorded as an amount due from the University. In fiscal year 2011, the estimated receivable was decreased to \$22.2 million based on additional analysis performed by management. The Authority received \$20.7 million and \$1.5 million in fiscal 2013 and 2014, respectively, from the IRS.

Related to this matter, MUSC residents work at the Ralph H. Johnson Veterans Affairs Medical Center (VA) and MUSC is reimbursed by the VA for this work. The \$22.2 million FICA refund included reimbursement of residents' FICA taxes and it is the Authority's position that this portion of the refund is owed to the VA. In fiscal year 2013, the Authority recorded a liability of approximately \$1.8 million to the VA for this matter and the balance of the liability is the same as of June 30, 2016. This is a component of other accrued expenses on the Statement of Net Position (note 7).

The Authority rents certain facilities space to and provides limited support services for the University. The income earned by the Authority for such items was approximately \$3.2 million during fiscal 2016, which is included in other revenue in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority had a net payable to the University of \$4.8 million at June 30, 2016. This net payable includes a receivable from the MUSC Foundations of \$614 thousand and is a component of due to related parties on the Statement of Net Position.

(b) University Medical Associates (UMA)

UMA, a blended component unit of the University, is a separately organized professional services corporation associated with the University's faculty practice plan. UMA and the Authority have entered into certain agreements related to clinical and other services provided by UMA and its practicing physicians for the benefit of the Authority. Net amounts paid by the Authority to UMA under these agreements totaled approximately \$58.5 million during fiscal 2016 and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

UMA also provides billing and collection services to the Authority related to certain limited clinical services, for which UMA receives an administrative fee. Total billings by UMA for the Authority services were approximately \$49.3 million in fiscal 2016. The amounts collected and remitted by UMA to the Authority with respect to these billings amounted to approximately \$9.7 million in fiscal 2016. The administrative fees paid by the Authority to UMA amounted to approximately \$870 thousand for fiscal 2016 and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

UMA and the Authority jointly fund the costs of an ambulatory and revenue cycle Electronic Health Record (EHR) system. The funding percentages for each entity depend on the particular costs incurred. The types of costs paid in fiscal year 2016 were primarily operating costs. Net amounts paid by UMA to the Authority totaled approximately \$2.8 million during fiscal year 2016.

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The Authority had a net payable to UMA in the amount of \$2.2 million at June 30, 2016. This payable is a component of due to related parties on the Statement of Net Position.

(c) ***The State of South Carolina***

The Authority benefits from certain administrative services provided by related State agencies and departments. The cost of these services (primarily related to insurance program administration, record-keeping, and centralized treasury management) is either insignificant relative to the Authority's allocable portion or is funded by the Authority with payments as described in notes 6, 8, 10, 11, 13 and 15.

(16) **Purchase Commitments**

The Authority originally entered into a long-term agreement on March 25, 2016 that requires certain minimum purchases of patient monitoring products and services through fiscal year 2024. The Authority amended the original agreement effective July 1, 2016, which reduced the required minimum purchases and corresponding unitary payments. This commitment is at a level consistent with normal business practices.

At June 30, 2016, the minimum purchase commitment from the amendment and extending beyond one year was as follows:

2017	\$	4,326,072
2018		4,326,072
2019		4,326,072
2020		4,326,072
2021		4,326,072
2022-2024		<u>12,978,216</u>
Total	\$	<u>34,608,576</u>

During 2016, the Authority's total purchases under the contract with a minimum purchase commitment were \$3.7 million.

A portion of the minimum purchases under this contract are considered capital leases and, therefore, are included in the required lease disclosures in note 14.

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(17) Investment in Initiant

In April 2014, the Authority, became a founding member of a health collaborative named Initiant. Initiant is a limited liability company owned by the founding members, with the opportunity to add more members (owners) and participants (nonowners) over time. The Authority has representation on the Board of Managers of the collaborative and exercises joint control with the other members over Initiant, LLC. The other members are Greenville Health System (Greenville, SC), McLeod Health (Florence, SC), Palmetto Health (Columbia, SC) and Self Regional Healthcare (Greenwood, SC). The purpose of this collaborative is to create efficiencies and synergies that mitigate the rising costs of healthcare.

In May 2016, Initiant, LLC's Board of Managers voted to change from an expense reimbursement structure to a combination of capital calls and member loans. The Authority will be responsible for its respective share of all future capital calls. It contributed \$400,000 of capital calls to the company in fiscal year 2016, which was based on its 20% ownership. The Authority also recorded and had outstanding at June 30, 2016 a \$134,608 payable to Initiant for the Authority's portion of professional fees incurred by Initiant, which is included in other accrued expenses on the Statement of Net Position. The Authority carries its investment balance on the Statement of Net Position using the equity method of accounting. At June 30, 2016, the Authority's investment balance Initiant was \$0.

Initiant, LLC will have separate financial statements going forward. However, financial statements were not available at June 30, 2016.

**THE AUTHORITY'S
Schedule of Proportionate Share
of Net Pension Liability to PEBA**

South Carolina Retirement System (SCRS) Pension Plan

June 30, 2015 Measurement Date

Year ended June 30	Proportion (percentage) of the collective net pension liability	Proportionate share (amount) of the collective net pension liability	Covered employee payroll	Proportionate share (amount) of the collective net pension liability as a percentage of covered employee payroll	Pension plan's fiduciary net position as a percentage of total pension liability
2016	3.377349%	\$ 640,530,521	281,452,784	227.58%	57.00%
2015	3.289076	566,270,880	268,970,820	210.53	59.90
2014	3.289184	589,943,980	259,311,350	227.50	56.39

**THE AUTHORITY'S
Schedule of Proportionate Share
of Net Pension Liability to PEBA**

Police Officers Retirement System (PORS) Pension Plan

June 30, 2015 Measurement Date

Year ended June 30	Proportion (percentage) of the collective net pension liability	Proportionate share (amount) of the collective net pension liability	Covered employee payroll	Proportionate share (amount) of the collective net pension liability as a percentage of covered employee payroll	Pension plan's fiduciary net position as a percentage of total pension liability
2016	0.21917%	\$ 4,776,715	2,730,140	174.96%	64.60%
2015	0.21963	4,204,542	2,692,311	156.17	67.50
2014	0.21962	4,552,745	2,589,067	175.85	62.98

The above schedules are intended to show ten years of information. Additional years will be provided as they became available.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

THE AUTHORITY'S
Schedule of Employer Contributions to PEBA
South Carolina Retirement System (SCRS) Pension Plan
Fiscal Year ended June 30, 2016

Year ended June 30	Employer contributions	Statutorily or contractually required employer contributions	Contribution deficiency (excess)	Covered employee payroll	Contributions as a Percentage of covered employee payroll
2016	\$ 31,128,678	31,128,678	—	281,452,784	11.06%
2015	29,317,819	29,317,819	—	268,970,820	10.90
2014	27,487,003	27,487,003	—	259,311,350	10.60
2013	27,997,059	27,997,059	—	264,123,194	10.60

THE AUTHORITY'S
Schedule of Employer Contributions to PEBA
Police Officers Retirement System (PORS) Pension Plan
Fiscal Year ended June 30, 2016

Year ended June 30	Employer contributions	Statutorily or contractually required employer contributions	Contribution deficiency (excess)	Covered employee payroll	Contributions as a percentage of covered employee payroll
2016	\$ 375,121	375,121	—	2,730,140	13.74%
2015	361,039	361,039	—	2,692,311	13.41
2014	332,436	332,436	—	2,589,067	12.84
2013	349,962	349,962	—	2,845,220	12.30

The above schedules are intended to show ten years of information. Additional years will be provided as they became available

See accompanying notes to required supplementary information and accompanying independent auditors' report.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Notes to Required Supplementary Information

June 30, 2016

(Unaudited)

SCRS

Valuation date

Actuarially calculated contribution rates are calculated as of July 1, 2012.

Methods and assumptions used to determine contribution rates:

Actuarial cost method
Amortization method
Amortization period
Asset valuation method

Entry Age Normal
Level% of Pay
29 years, open

The market value of assets less unrecognized returns in each of the last five years.
Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.

Inflation
Investment Rate of Return
Salary Increases
Mortality

2.75%
7.50%
3.50% plus step-rate increases for members with less than 25 years of service.
RP-2000 Mortality Table (White Collar Adjustment for Educators), projected at Scale AA from Year 2000. Male rates multiplied by 100% for noneducators and 110% for educators. Female rates multiplied by 90% for noneducators and 95% for educators.

Other Comments

As a result of enactment of Act 278, the member and employer contribution rates for SCRS are determined in accordance with Section 9-1-1085 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.

PORS

Valuation date

Actuarially calculated contribution rates are calculated as of July 1, 2012.

Methods and assumptions used to determine contribution rates:

Actuarial cost method
Amortization method
Amortization period
Asset valuation method

Entry Age Normal
Level% of Pay
30 years, open

The market value of assets less unrecognized returns in each of the last five years.
Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.

Inflation
Investment Rate of Return
Salary Increases
Mortality

2.75%
7.50%
4% plus step-rate increases for members with less than 12 years of service.
RP-2000 Mortality Table with Blue Collar Adjustment, projected at Scale AA from Year 2000. Male and female rates are multiplied at 115%.

Other Comments

As a result of enactment of Act 278, the member and employer contribution rates for SCRS are determined in accordance with Section 9-11-225 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.

See accompanying notes to required supplementary information and accompanying independent auditors' report.

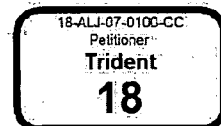


MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Basic Financial Statements and Required Supplementary Information

June 30, 2015

(With Independent Auditors' Report Thereon)



Confidential

MUSC_00976

ROA_1446

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

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KPMG LLP
Suite 400
300 North Greene Street
Greensboro, NC 27401

Independent Auditors' Report

The Board of Trustees
Medical University Hospital Authority:

We have audited the accompanying financial statements of the Medical University Hospital Authority (the Authority), a discrete component unit of The Medical University of South Carolina, as of and for the year ended June 30, 2015, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Medical University Hospital Authority as of June 30, 2015, and the changes in its net position, and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership,
the U.S. member firm of KPMG International Cooperative
("KPMG International"), a Swiss entity.

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MUSC_00978

ROA_1448



Emphasis of Matter

As discussed in note 1(m) to the financial statements, during fiscal year 2015 the Authority adopted Governmental Accounting Standards Board Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 1–13 and the Authority's share of the net pension liability and the Authority's contributions on pages 46–47. Be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 8, 2015 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

KPMG LLP

Greensboro, North Carolina
October 8, 2015

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Our discussion and analysis of Medical University Hospital Authority's (the Authority) financial performance provides an overview of the activities for the fiscal year ended June 30, 2015.

The intent of this discussion and analysis is to provide further information regarding the Authority's financial performance as a whole. Readers should also review the basic financial statements, along with the notes to the basic financial statements, to further enhance their understanding of the Authority's financial performance.

Financial Highlights – Fiscal 2015 and 2014 (restated)

At June 30, 2015, the Authority's liabilities and deferred inflows of \$1,137.0 million exceeded its assets and deferred outflows of \$1,029.7 million by \$107.3 million. This financial result is due to the implementation of GASB 68 in fiscal 2015. Net position, the residual interest in the assets and deferred outflows after liabilities and deferred inflows are deducted, increased by \$47.6 million in 2015, as compared to a decrease of \$504.6 million in 2014.

The Authority reported operating income in 2015 of \$45.0 million, as compared to operating income of \$53.6 million in 2014, a decrease of \$8.6 million.

Net nonoperating revenue was \$2.5 million for 2015, as compared to nonoperating revenue of \$4.3 million in 2014, a decrease of \$1.7 million or 40%.

Overview of the Financial Statements

The Authority, a major discreetly presented component unit of the Medical University of South Carolina (the University), owns and operates the clinical teaching sites of the University and serves the State of South Carolina as a principal diagnostic and treatment referral center.

The Authority's basic financial statements consist of three statements – a Statement of Net Position; a Statement of Revenues, Expenses and Changes in Net Position; and a Statement of Cash Flows. These basic financial statements are prepared in accordance with Governmental Accounting Standards Board (GASB) principles, and provide detailed information about the activities of the Authority and generally provide an indication of the Authority's financial health.

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Authority's resources and its activities. The Statement of Net Position presents the assets, both restricted and unrestricted, deferred outflows and inflows of resources, and all liabilities using the accrual basis of accounting. The Statement of Revenues, Expenses and Changes in Net Position reports all of the revenues and expenses for the time period indicated, regardless of when cash is received or paid, as well as payments to the University. These two statements report the Authority's net position and its changes.

The Statement of Cash Flows

The final required statement is the Statement of Cash Flows. This statement reports cash receipts, cash payments, and net changes in cash resulting from operating, investing, and capital and noncapital-related financing activities.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

The Authority's Net Position

The Authority's net position is the difference between its assets, deferred outflows and liabilities and deferred inflows reported in the Statement of Net Position. A comparative summary of assets, deferred outflows, liabilities, deferred inflows, and net position is as follows:

Summary Schedule of Net Position
(In thousands)

	2015	2014 (restated) *
Assets:		
Current assets	\$ 385,228	325,983
Investments	47,284	44,526
Capital assets, net	509,198	529,810
Total assets	941,710	900,319
Deferred outflows	88,010	72,897
Total assets and deferred outflows	1,029,720	973,216
Liabilities:		
Current liabilities	149,680	148,211
Long-term debt	368,618	385,372
Pension liabilities	570,493	594,497
Total liabilities	1,088,791	1,128,080
Deferred inflows	48,227	—
Total liabilities and deferred inflows	1,137,018	1,128,080
Net assets:		
Net investment in capital assets	158,527	165,860
Restricted under indenture agreements	47,284	44,526
Expendable for capital projects	—	3,357
Restricted for telemedicine	27,062	10,883
Unrestricted (deficit)	(340,170)	(379,490)
Total net position	\$ (107,297)	(154,864)

* Effective July 1, 2014 the Authority adopted the provisions of GASB Statement No.68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No.27*

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Analysis of the Financial Position as of June 30, 2015, Compared to June 30, 2014 (restated)

Total assets and deferred outflows increased by 5.8% from 2014 to 2015. Patient accounts receivable, net of estimated uncollectible amounts, decreased from \$186.0 million to \$183.0 million, as a result of increased contractual adjustments, and a \$50 million increase in cash collections over fiscal year 2014. This was largely due to the implementation of a new Electronic Health Record (EHR) system. Capital assets decreased during the fiscal year by \$20.6 million, as a result of continued inventories and retirement of clinical equipment and vehicles. There was also a significant amount of software retired in fiscal year 2015; software was replaced by the Epic inpatient and revenue cycle projects which went live July 1, 2014. There were also fewer additions of equipment and major construction projects this fiscal year. Investments increased by \$2.8 million due to increases in interest and investment income along with increased market value of the accounts.

Total liabilities and deferred inflows increased by 0.8% from 2014 to 2015. Long-term debt, including current installments, decreased by \$14.6 million, due to scheduled repayments on outstanding credit facilities. Current liabilities, excluding current installments of long-term debt, increased by \$745 thousand, largely resulting from an increase in due to related parties.

From the data presented, readers of the Statement of Net Position are able to determine the assets available to continue the operations of the Authority. They are also able to determine how much is owed to vendors, employees, and others. Finally, the Statement of Net Position provides a picture of the net position (assets and deferred outflows minus liabilities and deferred inflows) and their availability for expenditure.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Operating Results and Changes in the Authority's Net Position

Revenues, Expenses and Changes in Net Position
(In thousands)

	<u>2015</u>	<u>2014</u> (restated)
Operating revenues:		
Net patient service revenue	\$ 1,231,501	1,149,002
Other revenue	26,301	24,299
Total operating revenues	<u>1,257,802</u>	<u>1,173,301</u>
Operating expenses:		
Compensation and employee benefits	520,200	469,904
Services and supplies	631,911	594,287
Depreciation and amortization	60,666	55,486
Total operating expenses	<u>1,212,777</u>	<u>1,119,677</u>
Operating income	45,025	53,624
Nonoperating revenues (expenses):		
State appropriation	20,000	17,900
Gifts and grants	1,392	5,311
Investment income	2,054	1,357
Interest expense	(15,894)	(16,087)
Loss on disposal of capital assets	(4,011)	(2,975)
Other nonoperating expenses	(1,000)	—
Refinance issuance cost	—	(1,254)
Increase in net position	<u>\$ 47,566</u>	<u>57,876</u>

The Statement of Revenues, Expenses and Changes in Net Position presents the revenues earned and expenses incurred during the year. Activities are reported as either operating or nonoperating. Operating revenues are received for providing goods and services. Operating expenses are paid to acquire or produce the goods and services and to carry out the mission of the Authority. Nonoperating revenues and expenses are the result of activities for which goods and services are not provided. The utilization of capital assets is reflected in the financial statements as depreciation and amortization, which is the impact of depreciating the cost of each asset over its expected useful life. Changes in net position as presented in the Statement of Net Position are based on the activity presented in the Statement of Revenues, Expenses and Changes in Net Position.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Analysis of Operating Results for the Year ended June 30, 2015; Compared to the Year ended June 30, 2014 (restated)

Net Patient Service Revenue

Compared to fiscal year 2014, net patient service revenue increased by approximately \$82.5 million, or 7.2%. Gross patient charges increased by \$267.9 million, or 8.8%, from 2014 to 2015 due to increases in patient activity and comprehensive rate increases. Net revenue recognized related to the DSH program administered by the state Department of Health and Human Services decreased in 2015 to \$44.1 million from \$45.2 million in 2014. There can be no assurance that the Authority will continue to qualify for future participation in the DSH program or that the DSH program will not ultimately be discontinued or materially modified.

Payor class percentages changed somewhat from 2015 to 2014, showing a decrease in the Medicare and Private Insurance/Managed Care payor classes, increases in Blue Cross and Medically Indigent/Self Pay/Other and no change in Medicaid payor classes as shown in the table below:

Percentage of Net Patient Service Revenue by Payor Class

	<u>2015</u>	<u>2014</u>
Blue Cross	25%	24%
Medicare	30	31
Medicaid	24	24
Private Insurance/Managed Care	14	17
Medically Indigent/Self Pay/Other	7	4
Total	<u>100%</u>	<u>100%</u>

Inpatient Business Activity

Inpatient days of care increased by 5.2%, from 225,710 in 2014 to 237,439 in 2015, as summarized below. Average length of stay for all patients was 6.2 days in 2015 and 6.3 days in 2014. The average daily census increased in 2015 to 643 from the 2014 average of 629. Admissions increased in 2015 to 37,666 from the 2014 level of 36,166. Inpatient surgical procedures increased from 19,000 in 2014 to 19,981 in 2015, an increase of 5%. The Medicare case mix index for the Authority, which is a measure of inpatient acuity, increased from 2.19 in fiscal year 2014 to 2.22 in fiscal year 2015.

Summary of Inpatient Days

	<u>2015</u>	<u>2014</u>
Medical services	106,494	95,629
Surgical services	67,802	64,019
Psychiatric services	30,962	31,456
Women's services	32,181	34,606
Total inpatient days	<u>237,439</u>	<u>225,710</u>

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Outpatient Business Activity

Outpatient visit volume increased by 40,085, or 4% from 1,011,789 in 2014 to 1,051,874 in 2015. Emergency/Trauma visits increased to 82,426 in 2015 from the 2014 level of 77,249. Outpatient surgical procedures performed in 2015 totaled 8,383, as compared to 7,611 in 2014, an increase of 10%.

Deductions from Revenue

Contractual and other adjustments, expressed as a percentage of gross revenue (57.9%), did not change from 2014 to 2015. Contractual and other adjustments expressed in dollar terms increased by \$175.8 million from 2014 to 2015. The increase is due to the fact that reimbursements from Medicare, Medicaid, and third-party insurers are less than billed charges and increases in charges implemented by the Authority are not matched by increased reimbursement rates.

The provision for uncollectible accounts increased \$9.6 million, or 6.4% from 2014 to 2015 to a total of \$159.2 million for the year ended June 30, 2015. The increase is due to the continued high level of unemployment resulting in many patients being uninsured or underinsured. The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Authority has established policies under which it provides care to needy members of its communities. These policies include discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$63.0 million and \$79.0 million (as measured by established charges) were provided without charge during fiscal 2015 and 2014, respectively. The decrease from 2014 to 2015 is related to the Authority's continued focus on enhancing policy and process related to identification and qualification of patients for available insurance coverage such as Medicaid.

In total, uncompensated care write-offs at established rates as measured by the total of bad debts plus charity care totaled 6.6% of gross patient charges for both fiscal 2015 and 2014.

Operating Expenses

Operating expenses increased by \$93.1 million, from \$1,119.7 million in 2014 to \$1,212.8 million in 2015. This 8.3% increase is primarily the result of increases in services and supplies expense of \$37.6 million, or 6.3%, and in compensation and employee benefits of \$50.3 million, or 10.7%.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Management's Discussion and Analysis

June 30, 2015

(Unaudited)

Supply costs and pharmaceutical costs continue to increase at rates exceeding those of general inflation; however, rates of increase are comparable to inflation rates for the healthcare industry. Depreciation and amortization expense increased slightly in fiscal 2015.

Summary of Operating Expenses by Function
(In thousands)

	<u>2015</u>	<u>2014</u>
Patient services	\$ 858,992	784,460
General and administrative	293,118	279,731
Depreciation and amortization	60,667	55,486
Total operating expenses	<u>\$ 1,212,777</u>	<u>1,119,677</u>

Capital Assets

At the end of fiscal year 2015, the Authority had \$509.2 million invested in capital assets, net of accumulated depreciation, as shown in note 4 to the financial statements. Total capital asset additions of \$47.1 million in 2015 decreased by \$30.1 million from the 2014 amount of \$77.2 million. The 2015 decrease in capital assets additions from 2014 is the result of fewer additions to machinery and equipment which were \$20.5 million in 2015 and \$32.7 million in 2014. Also, there were no significant additions in 2015 to the electronic health record software project as it went live on July 1, 2014; related additions in 2014 were \$17.3 million. Construction in progress additions of \$22.1 million for the year ended June 30, 2015 were approximately the same as prior year.

Approximately \$3.5 million of the \$22.1 million of construction in progress additions relates to renovations of the 7th floor of the Ashley River Tower hospital. The 7th floor is being converted from office space to patient care space. The project is expected to be substantially complete in November 2015.

Approximately \$7.0 million of the \$22.1 million of construction in progress additions relates to the Children's Hospital and Women's Pavilion, Phase II of the Authority's 30-year hospital replacement program. The facility is expected to cost approximately \$350 million and would hold about 200 beds. The project is in the design phase with construction expected to start in March 2016 and has a target opening date of August 2019. Project progress is contingent on obtaining the necessary funds for the project.

Efforts to improve the clinical equipment and vehicle inventory processes began in the latter part of fiscal year 2013 and have continued through fiscal year 2015. The result has been a decrease in the reported costs of assets of approximately \$30.4 million and \$55.1 million in 2015 and 2014, respectively. Most of the assets were fully depreciated upon disposal.

The Authority placed into service approximately \$27.4 million and \$8.2 million for the inpatient and revenue cycle components for the Electronic Health Record (EHR) system in fiscal year 2015 as the projects went live on July 1, 2014. The EHR system migrates the Authority further toward a paperless environment as well as optimizing process efficiency and improving quality at each step of the continuum of care.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Management's Discussion and Analysis

June 30, 2015

(Unaudited)

The Authority uses both internal funds from operations and external debt capital in financing its capital acquisitions. Some capital acquisitions are also funded by federal grants and state appropriations. The most significant debt financing programs are discussed in further detail under "Financing" below.

For more details on capital assets see note 4.

Financing

The Authority has begun a phased approach replacement of much of its principal patient care facilities, a project planned for completion in stages over the next 20 years. Phase I of the project involved building a facility comprised of a four-story diagnostic and treatment center, a seven-story hospitality (bed) tower, and a garden atrium uniting the two sections of the building. Phase I of the project was completed in fiscal 2008. The 641,000 square-foot facility (Ashley River Tower) was opened on February 4, 2008. No new clinical health services were added as a result of this phase of the project. Phase II will be a Children's Hospital and Women's Pavilion. Initial planning was begun in FY2014 and continued in FY 2015 with architectural design derived from numerous clinical meetings and discussion of a financing plan. A pre-application document for the \$350 million project was submitted to the US Department of Housing & Urban Development relating to the FHA Section 241 loan program in August 2015. At June 30, 2015, almost \$68,000,000 had been secured by way of state funding and philanthropy for Phase II. The State of South Carolina approved \$25,000,000 in the FY2016 budget for this project, and another \$25,000,000 has been pledged by Shawn Jenkins, a local business owner. The hospital will be named the MUSC Shawn Jenkins Children's Hospital in honor of his generosity. This level of money raised to support the project should make possible HUD financing and maintain the hospital's development and construction timeline.

On December 22, 2004, the Authority issued \$422,060,000 of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004), consisting of \$303,965,000 Series A Tax-Exempt Bonds and \$118,095,000 Series B Taxable Bonds for the purpose of providing funds to (a) pay the costs of Phase I of the project mentioned above, (b) pay a portion of the interest accruing on the Bonds during construction of Phase I, (c) prepay the outstanding amount of the Charleston County Memorial Hospital Revenue Note, (d) advance refund the \$102,835,000 Hospital Facilities Refunding Revenue Bonds, Series 2002A, (e) fund a debt service reserve fund with respect to the Bonds, and (f) pay certain costs incurred in connection with the issuance of the Bonds.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61,000,000 of Economic Development Revenue Bonds, CEP Series 2004. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a Loan Agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156bed Phase I Authority project mentioned above. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the Bonds. On March 15, 2007, the construction of the Central Energy Plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
(A Component Unit of The Medical University of South Carolina)

Management's Discussion and Analysis

June 30, 2015

(Unaudited).

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59,400,000 bonds into Indexed Floating Rate Bonds to reduce the cost of capital and annual debt service payments detailed in note 6 to the financial statements. Concurrent with the conversion of the bonds, MUFC Central Energy Plant entered into a variable-to-fixed interest rate swap. The intention of the swap was to effectively convert the variable interest rate paid on the bonds to a synthetic fixed rate of 5.755%. This interest rate swap was terminated on December 30, 2013 and a payment of \$2,057,300 was made as part of the refinancing of the Central Energy Plant.

Management continues to look for opportunities to reduce nonoperating expenses. With interest expense being the largest nonoperating expense and interest rates at historically low levels, the Authority engaged a financial advisor in fiscal 2012 to help determine the most effective refinancing vehicle. On December 19, 2012, the refinancing of the Authority's Series 2004 bonds with Government National Mortgage Agency (GNMA) mortgage backed securities (MBS) was completed. Long term debt was reduced when funds in the debt service reserve and other accounts of approximately \$47,400,000 were made available to reduce principal. Interest was fixed at 2.94% and the amortization schedule was not extended. On December 30, 2013, the Authority refinanced the 2004 Central Energy Plant Economic Development Revenue Bonds (CEP Series 2004 bonds) with Government National Mortgage Agency (GNMA) mortgage backed securities (MBS). Interest was fixed at 3.85% and the amortization schedule was not extended.

The Authority entered into a revenue anticipation note contract with Branch Banking and Trust Company (BB&T) on June 15, 2012 expiring December 15, 2012. No such contract was in place from December 16, 2012 to June 30, 2013. The Authority entered into a six month revenue anticipation note with Branch Banking and Trust Company (BB&T) on August 20, 2013 expiring February 20, 2014. This revenue anticipation note with BB&T was renewed March 14, 2014 expiring September 14, 2014. The Authority did enter into a similar contract with BB&T in August 2014, renewed March 19, 2015 and will expire September 19, 2015. There were no draws on this note in fiscal year 2015.

In April 2013, the Authority entered into a \$13,800,000 equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

For more details on financing activities see note 6.

Current Operating Environment

The U.S. economy continues its recovery from the downturn of the past several years. Management of the Authority monitors these economic conditions closely, both with respect to potential impacts on the healthcare provider industry and from a more general business perspective. While the Authority was able to achieve certain objectives of importance in the current economic environment, management recognizes that economic conditions may continue to impact the Authority in a number of ways, including (but not limited to) uncertainties associated with the global economy, improvement in the unemployment rate and associated impact on uninsured, and stress on the federal, state and local budgets. Additionally, the general healthcare industry environment is increasingly uncertain.

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Management's Discussion and Analysis

June 30, 2015

(Unaudited)

especially with respect to the impacts of the federal healthcare reform legislation which was passed in the spring of 2010. Potential impacts of ongoing healthcare industry transformation include, but are not limited to:

- Continuing volatility in the state and federal government reimbursement programs; for example, the Affordable Care Act reduces payments to all hospitals by \$155 billion over ten years; it was projected that these cuts would be offset by the reduction in the uninsured population. While South Carolina chose not to expand Medicaid the uninsured rate has dropped from 18.7% to 15.4%;
- Exchange reimbursement levels that are significantly below those of traditional commercial insurance companies; payor policies that do not recognize valid assignment of benefits from patients and send payment for healthcare services to patients. Changes in combined state/federal disproportionate share payments, increasing reliance on managed care plans by Medicare and Medicaid and attendant increases in program complexity and payment delays and impact on the healthcare "demand curve" as the previously uninsured enter the insurance system;
- Effective management of multiple major regulatory mandates, including achievement of meaningful use of HCIT and the transition to ICD-10; and
- Significant potential business model changes throughout the healthcare industry, including recently announced mergers of the nation's largest health insurers.

In South Carolina, in order to control escalating Medicaid costs, the Department of Health and Human Services has maintained the changes that were implemented for hospital service rates to remain at the November, 2012 payment levels:

- Inpatient hospital base rates were increased 2.75% on October 1, 2013 and 2.50% on October 1, 2014 to maintain the ninety three percent (93%) of cost target;
- Inpatient Graduate Medical Education (Direct and Indirect Medical education) reimbursement rates remain at the November 1, 2012 level;
- Outpatient hospital multiplier was adjusted to maintain the ninety three percent (93%) of cost target.

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These reimbursement rate adjustments have had and will continue to have a significant impact on the Authority's financial performance. To help minimize the impact of this revenue reduction, the Authority continues implementation of a hospital-wide response plan directed at high-impact areas, both clinically and financially. All areas of a patient's stay are reviewed, including (but not limited to) reducing length of stay, standardization of supplies, use of generic vs. brand name drugs, staffing ratios, and new information technology to improve medical coding and billing.

The business of healthcare in the current economic, legislative and regulatory environment is volatile. Any of the above factors, along with others both currently in existence and which may or may not arise in the future, could have a material adverse impact on the Authority's financial position and operating results.

Contacting the Authority's Financial Management

This financial report is designed to provide interested parties with a general overview of the Authority's finances and to show the Authority's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Authority's Chief Financial Officer at Medical University Hospital Authority, P.O. Box 250332, Charleston, SC 29425.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Statement of Net Position

June 30, 2015

Assets and Deferred Outflows	2015
Current assets:	
Cash and cash equivalents	\$ 117,725,317
Cash restricted for capital improvements and programs	16,568,662
Investments	9,993,605
Patient accounts receivable, net of allowance for uncollectible accounts of \$86,800,000	183,023,069
Due from third-party payors	7,860,846
Other current assets	50,056,012
Total current assets	385,227,511
Investments held by trustees under indenture agreements	47,284,017
Capital assets, net	509,198,425
Total assets	941,709,953
Deferred outflows	88,010,521
Total assets and deferred outflows	\$ 1,029,720,474
Liabilities, Deferred Inflows, and Net Position	
Current liabilities:	
Current installments of long-term debt and capital lease obligations	\$ 17,787,496
Accounts payable	56,462,414
Accrued payroll, withholdings, and benefits	60,811,965
Due to related parties	6,345,551
Due to third-party payors	2,801,341
Other accrued expenses	5,471,151
Total current liabilities	149,679,918
Long-term debt and capital lease obligations net of current installments	368,617,611
Pension liabilities	570,493,064
Total liabilities	1,088,790,593
Deferred inflows	48,227,260
Total liabilities and deferred inflows	1,137,017,853
Net position:	
Net investment in capital assets	158,526,772
Restricted:	
Under indenture agreements	47,284,017
Telemedicine program	27,062,267
Unrestricted (deficit)	(340,170,435)
Total net position	(107,297,379)
Total liabilities, deferred inflows, and net position	\$ 1,029,720,474

See accompanying notes to basic financial statements.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Statement of Revenues, Expenses and Changes in Net Position
Year ended June 30, 2015

	<u>2015</u>
Operating revenues:	
Net patient service revenue (net of provision for bad debts of approximately \$159,221,000)	\$ 1,231,500,978
Other revenue	<u>26,301,004</u>
Total operating revenues	<u>1,257,801,982</u>
Operating expenses:	
Compensation and employee benefits	520,199,569
Services and supplies	631,910,527
Depreciation and amortization	<u>60,666,452</u>
Total operating expenses	<u>1,212,776,548</u>
Operating income	<u>45,025,434</u>
Nonoperating revenue (expense):	
State appropriation	20,000,000
Gifts and grants	1,392,082
Investment income	2,053,755
Interest expense	(15,893,550)
Loss on disposal of capital assets	(4,011,288)
Other nonoperating expenses	<u>(1,000,000)</u>
Increase in net position	<u>47,566,433</u>
Net position, beginning of year (as restated)	<u>(154,863,812)</u>
Net position, end of year	<u>\$ (107,297,379)</u>

See accompanying notes to basic financial statements.

MEDICAL UNIVERSITY HOSPITAL AUTHORITY
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Statements of Cash Flows

Year ended June 30, 2015

	<u>2015</u>
Cash flows from operating activities:	
Cash received from patients and third-party payors	\$ 1,240,462,992
Other cash receipts	27,588,420
Cash payments to suppliers and employees	<u>(1,148,059,338)</u>
Net cash provided by operating activities	<u>119,992,074</u>
Cash flows from capital and related financing activities:	
Capital expenditures	(41,727,767)
Capital appropriations	20,000,000
Capital grants and gifts received	850,000
Proceeds from disposal of equipment	15,160
Payments of principal on long-term debt	(16,827,770)
Payment of bond insurance premium	(1,581,267)
Payments on capital lease obligations	(476,656)
Payments on licensing fee obligations	(2,621,528)
Interest payments	<u>(12,178,236)</u>
Net cash used in capital and related financing activities	<u>(54,548,064)</u>
Cash flows from investing activities:	
Investment income received	19,178
Purchases of investments	<u>(5,544,196)</u>
Net cash used in investing activities	<u>(5,525,018)</u>
Net increase in cash and cash equivalents	59,918,992
Cash and cash equivalents at beginning of year	<u>74,814,149</u>
Cash and cash equivalents at end of year	\$ <u><u>134,733,141</u></u>
Reconciliation of operating income to net cash provided by operating activities:	
Operating income	\$ 45,025,434
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation and amortization	60,666,452
Provision for uncollectible accounts	159,221,144
Transfer of assets from MUSC	(36,276)
Changes in operating assets and liabilities:	
Patient accounts receivable	(156,276,597)
Due from third-party payors	(124,826)
Other current assets	4,299,132
Accounts payable	174,282
Other accrued expenses and accrued payroll, withholding and benefits	6,863,972
Due to third-party payors	361,717
Due to related parties	<u>(182,360)</u>
Net cash provided by operating activities	\$ <u><u>119,992,074</u></u>
Reconciliation of cash and cash equivalents at end of year to the statement of net position:	
Cash and cash equivalents	\$ 117,725,317
Restricted for capital improvements and programs	16,568,662
Included in investments held by trustees under indenture agreements	<u>439,162</u>
	\$ <u><u>134,733,141</u></u>
Noncash transactions:	
Capital lease equipment	\$ 2,685,551
Change in fair value of investments	828,823

See accompanying notes to basic financial statements.

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Notes to Basic Financial Statements

June 30, 2015

(1) Summary of Significant Accounting Policies

Medical University Hospital Authority (the Authority) is a multidimensional healthcare system headquartered in Charleston, South Carolina. The Authority is a principal diagnostic and treatment referral center for the State of South Carolina, and also owns and operates the principal clinical teaching institutions for The Medical University of South Carolina (the University). The primary facilities used by the Authority, all located on or near the Authority's main campus in Charleston, consist of the following:

- University Hospital
- Ashley River Tower
- Children's Hospital
- Storm Eye Institute
- Institute of Psychiatry
- Digestive Disease Center
- Transplant Center
- Hollings Cancer Center
- MUSC Heart and Vascular Center

Reporting Entity

The Authority is a major discretely presented component unit of the University, as defined by the provisions of Governmental Accounting Standards Board (GASB) Statement No. 61, *The Financial Reporting Entity: Omnibus* (Statement No. 61). The Authority's component unit relationship to the University arises principally because the nature and significance of the relationship is such that exclusion would cause the University's financial statements to be misleading or incomplete. In particular, the legislation establishing the Authority as a stand-alone healthcare system, effective July 1, 2000, requires that the members of the University's Board of Trustees also constitute the Board of Trustees of the Authority.

The significant accounting policies used by the Authority in preparing and presenting its financial statements are as follows:

(a) Basis of Accounting

For financial reporting purposes, the Authority is considered a special purpose government engaged only in business-type activities. Accordingly, the financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred.

(b) Cash Equivalents

The Authority considers investments in highly liquid individual debt instruments (with an original maturity of three months or less) and similar fund positions to be cash equivalents.

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(c) Inventories

Inventories, consisting principally of medical supplies and pharmaceuticals, are stated at the lower of cost (first-in, first-out) or replacement value and are included in other current assets in the accompanying Statement of Net Position.

(d) Investments and Investment Income

Investments consist of internally or externally restricted cash equivalents, and treasury obligations with original maturities greater than three months, all of which are carried at fair value, principally based on quoted market prices. Investment income or loss from investments (including realized and unrealized gains and losses on investments and interest) is reported as nonoperating revenue.

(e) Capital Assets

Capital assets are recorded at cost or, if donated, at fair value at the date of receipt. Depreciation is provided over the useful life of each class of depreciable assets using the straight-line method. Equipment under capital lease obligations is amortized using the straight-line method over the estimated useful life of the equipment, and such amortization is included in depreciation and amortization in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

A summary of depreciable lives is as follows:

Land improvements	3 – 25 years
Buildings and improvements	5 – 40 years
Machinery, equipment, and vehicles	3 – 20 years
Software	3 – 5 years

Capital assets are reviewed for impairment whenever prominent events or changes in circumstances occur that affect the Authority's capital assets. Such events or changes in circumstances that may be indicative of impairment include evidence of physical damage, enactment or approval of laws or regulations or other changes in environmental factors, technological changes, or evidence of obsolescence, changes in the manner or duration of use of a capital asset, and construction or development stoppage. A capital asset generally is considered impaired if both (a) the decline in service utility of the capital asset is large in magnitude and (b) the event or change in circumstance is outside the normal life cycle of the capital asset.

(f) Statement of Revenues, Expenses and Changes in Net Position

For purposes of presentation, transactions deemed by management to be ongoing, major or central to the provision of healthcare services are reported as operating revenues and operating expenses. Peripheral or incidental transactions, including financing costs and investment income, are reported as nonoperating revenues and expenses.

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(g) Net Patient Service Revenue

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors, and others for services rendered, and includes estimated retroactive revenue adjustments due to future audits, reviews, and investigations, as well as the provision for uncollectible accounts. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews, and investigations.

(h) Charity Care

The Authority provides care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. Because the Authority does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue.

(i) Net Position

Net position of the Authority is classified into the following components:

- Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by outstanding balances of any borrowings used to finance the purchase or construction of those assets.
- Restricted under indenture agreements represents amounts deposited with trustees as required by bond indentures or other debt agreements.
- Restricted for the telemedicine program represents amounts award from the state of South Carolina to be used as stipulated by the state appropriation.
- Unrestricted represents remaining net position that does not meet either of the above definitions.

When the Authority has both restricted and unrestricted resources available to finance a particular program, it is the Authority's policy to use restricted resources before unrestricted resources.

(j) Costs of Borrowing

The deferred accounting loss on refunding is being amortized over the terms of the related indebtedness using the effective interest method. Refunding losses are classified as deferred outflows of resources on the Statement of Net Position. Costs of issuance are expensed in the period incurred.

Interest cost is capitalized on qualified construction expenditures, net of income earned on related trustee assets, as a component of the cost of the related projects. For qualifying capital projects that are not financed with specific proceeds of tax-exempt debt, the Authority capitalizes interest cost on such projects based on accumulated expenditures and a weighted average borrowing rate.

(k) Income Taxes

The Authority is a political subdivision of the State of South Carolina and is treated as a governmental entity for tax purposes. Additionally, the Authority has received its determination letter from the

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Internal Revenue Service, indicating that it is exempt from income tax under Section 501(a) of the Internal Revenue Code, as an organization described in Section 501(c)(3). As such, the Authority is not generally subject to federal or state income taxes. However, the Authority remains subject to income taxes on any net income that is derived from a trade or business, regularly carried on and not in furtherance of the purpose for which it was granted exemption. No income tax provision has been recorded. If there is net income from any unrelated trade or business, such provision, in the opinion of management, is not material to the financial statements taken as a whole.

(l) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires that management make estimates and assumptions affecting the reported amounts of assets, liabilities, revenues and expenses, as well as disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Significant items subject to such estimates include the allowances for uncollectible accounts and contractual adjustments for patient receivables, depreciation and amortization, liability for incurred but not reported claims under the self-insured health plan, and estimated third-party payor settlements. In particular, laws and regulations governing the Medicare and Medicaid programs are extremely complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates related to these programs will change by a material amount in the near term.

(m) Recent Accounting Pronouncements

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* (GASB Statement No. 68), was published in June 2012. This new pronouncement improves information provided by state and local government employers about financial support for pensions that is provided by other entities.

Statement No. 68 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expenditures. For defined benefit pensions, Statement No. 68 identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service.

During fiscal 2015, the Authority implemented GASB Statement No. 68. GASB Statement No. 68 details how cost-sharing multiple-employer defined benefit plans, such as the one administered by the Public Employee Benefit Authority (PEBA) on behalf of the Authority, will recognize pension liabilities based upon the employer's proportionate share of the collective net pension liability. This Statement also addresses the note disclosure and required supplementary information requirements for reporting the pension liability. This Statement had a material impact on the Authority's financial statements as the Authority contributes to a pension plan administered by PEBA (note 11).

GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68* (GASB Statement No. 71) was published November 2013. This new pronouncement requires that, at transition to GASB Statement No. 68, a

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government recognize a beginning deferred outflow of resources for its pension contributions, if any, made subsequent to the measurement date of the beginning net pension liability. GASB Statement No. 71 must be applied simultaneously with GASB Statement No. 68. The Authority implemented GASB Statement No. 71 for fiscal year 2015.

The impact of implementing Statements No. 68 and No. 71 is presented in the following schedule:

	2015
Net position – beginning of year as previously reported	\$ 407,641,580
Adoption of Statement No. 68	(594,496,724)
Adoption of Statement No. 71	31,991,332
Net position (deficit) – beginning of year, as restated	\$ (154,863,812)

GASB Statement No. 72, *Fair Value Measurement and Application*, (GASB Statement No. 72) was issued in February 2015. This Statement addresses accounting and financial reporting issues related to fair value measurements. The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and requires the use of valuation techniques that are appropriate under the circumstances and for which sufficient data is available to measure fair value. These techniques should be consistent with one of the following approaches: the market approach, the cost approach, or the income approach. Use of the highest approach based on the following hierarchy of inputs should also be used: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities, Level 2 inputs are inputs (other than quoted prices included in Level 1) that are either directly or indirectly observable for the asset or liability, or Level 3 inputs which are unobservable inputs such as management's assumption of the default rate amount underlying mortgages of a mortgage backed security. GASB Statement No. 72 also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. The provisions of GASB Statement No. 72 are effective for financial statement periods beginning after June 15, 2015, fiscal year 2016 for the Authority.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, (GASB Statement No. 75), was issued in June 2015. The primary objective of this Statement is to improve accounting and financial reporting by the state and local governments for postemployment benefits other than pensions (OPEB). This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources and expenses. For defined benefit OPEB, this Statement identified the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to period of employee service. Note disclosure and required supplementary information requirements about OPEB are also addressed. In addition, this Statement details the recognition and disclosure requires for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specified criteria for employers whose employees are provided with defined contribution OPEB. The provisions of GASB Statement

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No. 75 are effective for financial statement periods beginning after June 15, 2017, fiscal year 2018 for the Authority.

The Authority is in the process of evaluating the impact of implementing GASB Statements No. 72, 75 and other recent accounting pronouncements on the Authority's financial statements.

(2) Cash, Cash Equivalents and Investments

The Authority's cash balances at June 30, 2015 is as follows:

Insured (FDIC and SIPC)	\$ 759,972
Uninsured, uncollateralized, or collateralized by securities held by the pledging institution or by its trust department or agent in other than the Authority's name	<u>140,935,079</u>
Total	<u>\$ 141,695,051</u>
Carrying amount (cash and cash equivalents)	\$ 134,293,979

Including in the carrying amount (cash and cash equivalents) above is \$439,162 of cash included in investments as noted below.

A summary of investments at June 30, 2015 is as follows:

	Fair value	Percentage	Maturities	Interest rate	Credit rating
Cash	\$ 439,162	0.8%	N/A	N/A	N/A
Fixed income securities:					
U.S. Treasury Note Bond	4,588,881	8.0%	4/30/2017	0.9%	Aaa
Federal National Mortgage Association	33,909,527	59.2%	11/26/2027 - 8/23/2032	0.42% - 3.0%	AA+
Federal Home Loan Bank	13,099,937	22.9%	06/30/2016 - 7/19/2032	1.1% - 3.1%	AA+
State of Israel	4,994,365	8.7%	11/15/2015	0.0%	Not rate
Certificates of deposit	245,750	0.4%	12/9/2015	0.9%	Not rated
	<u>\$ 57,277,622</u>				

The Authority's investment strategy has been developed to, among other things, ensure that the investment portfolio remains in compliance with the investments deemed permissible under the indenture agreement described in note 6. There is no formalized deposit or investment policy that otherwise addresses credit risk, custodial credit risk, interest rate risk, or foreign currency risk.

Guidelines for investments and cash equivalents are as follows:

1. Direct obligations of the United States (U.S.) government, securities issued by federal agencies backed by the full faith and credit of the U.S. government, and securities issued by certain nonfull faith and credit federal agencies.

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2. Cash, money market funds and certificates of deposit that are appropriately collateralized, insured or issued by investment grade financial institutions.
3. Investment agreements, including guaranteed investment contracts, commercial papers, repurchase agreements and other securities are subject to credit rating minimums, acceptance by related insurers, and other provisions, as described in the indenture agreements.

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Except for restrictions imposed by the aforementioned indenture agreement, there are no limits on the amount the Authority may invest in any one issuer. As of June 30, 2015, more than 59% of the Authority's investments are in notes issued by the Federal National Mortgage Association.

Investment income is comprised of the following for the year ended June 30, 2015:

Dividend and interest income	\$ 1,195,975
Realized and unrealized gain on investments	857,780
	<u>\$ 2,053,755</u>

(3) Other Current Assets

The composition of other current assets at June 30, 2015 is as follows:

Prepaid expenses	\$ 10,689,364
Inventories	25,085,972
Amounts due from the South Carolina Medicaid Disproportionate Share Hospital program (note 8)	1,496,077
Amounts due from the South Carolina Medicaid HMO Graduate Medical Education program	9,079,541
Other	3,705,058
	<u>\$ 50,056,012</u>

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(4) Capital Assets

Capital assets and related activity for the year ended June 30, 2015 consisted of the following:

	Beginning balance	Increases	Decreases	Ending balance
Capital assets not being depreciated:				
Land	\$ 6,092,725	—	—	6,092,725
Assets not in service	41,238,482	3,837,835	(42,414,006)	2,662,311
Construction in progress:	8,597,737	22,092,115	(12,899,448)	17,790,404
Total capital assets not being depreciated	<u>55,928,944</u>	<u>25,929,950</u>	<u>(55,313,454)</u>	<u>26,545,440</u>
Capital assets being depreciated:				
Buildings, improvements and fixed equipment	713,316,890	15,124,445	—	728,441,335
Machinery and equipment	250,485,444	23,217,108	(30,325,278)	243,377,274
Software	22,844,903	37,489,476	(11,877,926)	48,456,453
Vehicles	2,009,342	141,222	(100,644)	2,049,920
Total capital assets being depreciated	<u>988,656,579</u>	<u>75,972,251</u>	<u>(42,303,848)</u>	<u>1,022,324,982</u>
Less accumulated depreciation for:				
Buildings, improvements and fixed equipment	(311,875,653)	(34,660,053)	—	(346,535,706)
Machinery and equipment	(185,941,802)	(19,144,140)	29,252,454	(175,833,488)
Software	(15,065,661)	(8,926,722)	8,644,580	(15,347,803)
Vehicles	(1,892,364)	(163,280)	100,644	(1,955,000)
Total accumulated depreciation	<u>(514,775,480)</u>	<u>(62,894,195)</u>	<u>37,997,678</u>	<u>(539,671,997)</u>
Capital assets being depreciated, net	<u>473,881,099</u>	<u>13,078,056</u>	<u>(4,306,170)</u>	<u>482,652,985</u>
Capital assets, net	<u>\$ 529,810,043</u>	<u>39,008,006</u>	<u>(59,619,624)</u>	<u>509,198,425</u>

Construction in progress at June 30, 2015 consists primarily of costs associated with various renovation projects in process at existing hospital facilities. Construction in progress projects are generally scheduled for completion in fiscal years 2016 and 2017. Remaining costs to complete these projects are estimated to total approximately \$383 million and include Phase II for a new Children's Hospital and Women's Pavilion.

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The Authority placed into service approximately \$27.4 million and \$8.2 million for the inpatient and revenue cycle components for the Electronic Health Record (EHR) system in fiscal year 2015 as the projects went live on July 1, 2014. The EHR system migrates the Authority further toward a paperless environment as well as optimizing process efficiency and improving quality at each step of the continuum of care.

Interest cost capitalized on qualifying assets was approximately \$209,000 for the year ended June 30, 2015.

(5) Deferred Outflows

The composition of deferred outflows at June 30, 2015 is as follows:

Deferred loss on refunding GNMA MBS	
Series 2012	\$ 35,003,444
Deferred loss on refunding CEP	
Series 2013	1,939,946
Pension Plans	51,067,131
Total	<u>\$ 88,010,521</u>

(6) Long-Term Debt

A summary of long-term debt at June 30, 2015 is as follows:

GNMA MBS, 2012 Refinancing of Series 2004 Bonds, Series 2012, payable in varying amounts through 2033, with monthly interest payments at the rate of 2.94%	\$ 328,085,255
MUHA Central Energy Plant, 2013 Refinancing of MUFC Central Energy Plant, LLC Economic Development Revenue Bonds, Series 2013, payable in varying amounts through 2032, with monthly interest payments at the rate of 3.85%	44,710,624
Note Payable to Wells Fargo Bank, for conservation equipment, payable in varying amounts through March 2023, with quarterly interest payments at the rate of 3.50%	11,046,929
	<u>383,842,808</u>
Less current installments	<u>17,324,945</u>
	<u>\$ 366,517,863</u>

In December 2004, the Authority issued a total of \$422,060,000 of FHA Insured Mortgage Hospital Facilities and Refunding Revenue Bonds, Series 2004 (Series 2004) at a premium of \$11,445,157. The net bond proceeds as well as monies from the Series 2002A Hospital Facilities Refunding Revenue Bonds (2002A Refunding Bonds) trustee account were used to defease all amounts outstanding under the prior Series 2002A bonds and a promissory note payable to Charleston County, and fund construction of new replacement hospital facilities located in Charleston, South Carolina.

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With respect to the 2002A Refunding Bonds defeasance, funds were deposited in an irrevocable trust to provide for the debt service of the bonds payable and, therefore, all related amounts have been removed from the Authority's Statement of Net Position. The deposits in trust have been or will be used to pay all scheduled principal and interest payments on the 2002A Refunding Bonds through 2032.

The 2004 refunding transaction resulted in an accounting loss totaling approximately \$15,475,000, which has been deferred and is being amortized using the effective interest method through 2032. The deferred loss is related entirely to the in-substance defeasance of bonds payable.

The Authority entered into a revenue anticipation note contract with Branch Banking and Trust Company (BB&T) on June 15, 2012 expiring December 15, 2012. No such contract was in place from December 16, 2012 to June 30, 2013. The Authority entered into a six month revenue anticipation note with Branch Banking and Trust Company (BB&T) on August 20, 2013 expiring February 20, 2014. This revenue anticipation note with BB&T was renewed March 14, 2014 expiring September 14, 2014. The Authority entered into a similar contract with BB&T in August 2014, renewed March 19, 2015 that will expire September 19, 2015. There were no draws on this note in fiscal year 2015.

On December 29, 2004, the South Carolina Jobs Economic Development Authority issued \$61,000,000 of Economic Development Revenue Bonds, CEP Series 2004. Proceeds of the bonds were loaned to MUFC Central Energy Plant, LLC, a single-member limited liability company organized under the laws of the State of South Carolina, whose sole member is Medical University Facilities Corporation. Pursuant to a Loan Agreement between the issuer and the borrower, the borrower shall use the proceeds to finance the construction of an approximately 52,000 square foot central energy plant and certain other improvements, renovations, and furnishings, fixtures, and equipment to provide steam and chilled water for the use and benefit of the new 156-bed Phase I Authority project. Pursuant to the loan agreement, the borrower is obligated to make payments to the issuer in amounts sufficient to pay the principal and interest on the Bonds. On March 15, 2007, the construction of the Central Energy Plant was substantially completed, and the plant was put into service. In 2014, MUFC Central Energy Plant, LLC was terminated after the refunding of the CEP Series 2004 Bonds.

On February 1, 2008, MUFC Central Energy Plant, LLC converted the then outstanding \$59,400,000 bonds into Indexed Floating Rate Bonds to reduce cost of capital and annual debt service payments.

On December 19, 2012, the Authority refinanced the CEP 2004 Series bonds with Government National Mortgage Agency (GNMA) mortgage backed securities (MBS) (Series 2012). The refinance was done to substantially lower the Authority's interest rate from 5.18% and 5.14% on the 2004 Series bonds in fiscal 2013 to a 2.94% fixed rate on the Series 2012. At the time of refinancing, the long term debt obligation was reduced by debt service reserve and other funds which became available to make additional principal payments. The net proceeds of \$360.4 million (after payment of \$1.1 million of issuance costs plus an additional \$49.9 million of 2004 Series debt service fund monies), were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2004 Series bonds. The advance refunding of the 2004 Series bonds resulted in an economic gain of \$1.0 million along with reducing total debt service payments over the next 20 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations an additional indebtedness.

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In April 2013, the Authority entered into a \$13.8 million equipment lease/purchase agreement with Wells Fargo Bank for energy conservation equipment for the Sabin Street central energy plant project. The terms are 10 years with an interest rate of 3.50%. This agreement is subject to the master lease program agreement between Wells Fargo Bank and the State of South Carolina.

On December 30, 2013, the Authority refinanced the 2004 MUFC Central Energy Plant LLC Economic Development Revenue Bonds (CEP Series 2004 bonds) with GNMA MBS (Series 2013). The refinance was done to lower the Authority's effective interest rate from 5.75% on the 2004 Series to a 3.85% fixed rate on the Series 2013. The net proceeds of \$47.4 million (after payment of \$1.3 million of issuance costs) were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the CEP Series 2004 bonds. As a result, the CEP Series 2004 bonds are considered to be defeased and the liability for those bonds has been removed from the statement of net position. The advance refunding of the CEP Series 2004 bonds resulted in an economic gain of \$2.4 million along with reducing total debt service payments over the next 18 years. The bond indenture contains certain terms and restrictive covenants, typical of such agreements, including maintenance of certain debt service coverage levels and limitations on additional indebtedness.

Debt service requirements associated with the Authority's outstanding bonds are as follows:

	Series 2013		Series 2012		Total
	Principal	Interest	Principal	Interest	
Fiscal year:					
2016	\$ 2,019,571	1,685,969	14,037,467	9,457,555	27,200,562
2017	2,098,711	1,606,829	14,455,775	9,039,246	27,200,561
2018	2,180,953	1,524,587	14,886,549	8,608,473	27,200,562
2019	2,266,417	1,439,123	15,330,159	8,164,862	27,200,561
2020	2,355,230	1,350,310	15,786,989	7,708,032	27,200,561
2021	2,447,524	1,258,016	16,257,432	7,237,589	27,200,561
2022	2,543,434	1,162,106	16,741,894	6,753,127	27,200,561
2023	2,643,103	1,062,437	17,240,793	6,254,228	27,200,561
2024	2,746,677	958,863	17,754,558	5,740,463	27,200,561
2025	2,854,311	851,229	18,283,634	5,211,387	27,200,561
2026	2,966,162	739,378	18,828,475	4,666,546	27,200,561
2027	3,082,396	623,144	19,389,553	4,105,468	27,200,561
2028	3,203,184	502,356	19,967,351	3,527,671	27,200,562
2029	3,328,707	376,833	20,562,366	2,932,655	27,200,561
2030	3,459,148	246,392	21,175,112	2,319,909	27,200,561
2031	3,594,700	110,840	21,806,119	1,688,903	27,200,562
2032	920,396	5,912	22,455,928	1,039,093	24,421,329
2033	—	—	23,125,101	369,915	23,495,016
Total	\$ 44,710,624	15,504,324	328,085,255	94,825,122	483,125,325

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Debt service requirements associated with the Authority's note payable are as follows:

	Wells Fargo		Total
	Principal	Interest	
Fiscal year:			
2016	\$ 1,267,907	370,122	1,638,029
2017	1,312,872	325,159	1,638,031
2018	1,359,428	278,602	1,638,030
2019	1,407,636	230,394	1,638,030
2020	1,457,554	180,476	1,638,030
2021	1,509,241	128,789	1,638,030
2022	1,562,762	75,268	1,638,030
2023	1,169,529	20,190	1,189,719
Total	\$ 11,046,929	1,609,000	12,655,929

A schedule of changes in the Authority's long-term debt and capital lease obligations for the year ended June 30, 2015 is as follows:

	Date of issuance	Beginning balance	Additions	Refunded and/or retired	Ending balance	Due within one year
Capital leases (note 14)	Various	\$ 353,404	2,685,551	(476,656)	2,562,299	462,551
Series 2012	12/19/2012	341,716,522	—	(13,631,267)	328,085,255	14,037,467
Wells Fargo	4/25/2013	12,300,020	—	(1,253,091)	11,046,929	1,267,907
Series 2013	12/30/2013	46,654,036	—	(1,943,412)	44,710,624	2,019,571
		\$ 401,023,982	2,685,551	(17,304,426)	386,405,107	17,787,496

(7) Other Accrued Expenses

The composition of other accrued expenses at June 30, 2015 is as follows:

Accrued interest	\$ 836,029
EPIC license fees	1,209,936
Amounts due to contractors	466,121
Other	2,959,065
	\$ 5,471,151

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(8) Net Patient Service Revenue

The Authority has agreements with governmental and other third-party payors that provide for reimbursement to the Authority at amounts different from its established rates. Contractual adjustments under third-party reimbursement programs represent the difference between the Authority's billings at established rates for services and amounts reimbursed by third-party payors. A summary of the basis of reimbursement with major third-party payors is as follows:

- Medicare – Substantially all inpatient acute care and outpatient services rendered to Medicare program beneficiaries are paid at prospectively determined rates. These rates vary according to patient classification systems that are based on clinical, diagnostic, and other factors. Additionally, the Authority is reimbursed for both its direct and indirect medical education costs (as defined), based principally on per-resident prospective payment amounts and certain adjustments to prospective rate-per-discharge operating reimbursement payments. The Authority generally is reimbursed for retroactively determined items at tentative rates, with final settlement determined after submission of annual cost reports by the Authority and audits by the Medicare fiscal intermediary. The Authority's cost reports have been audited and initially settled for all fiscal years through 2008, except for 2006.

Revenue from the Medicare program accounted for approximately 30% of the Authority's net patient service revenue for the fiscal year ending June 30, 2015.

- Medicaid – Inpatient and outpatient services rendered to most Medicaid program beneficiaries are reimbursed based upon prospective reimbursement methodologies.

The Authority participates in the Medicaid Disproportionate Share Hospital program (the DSH Program) available to certain qualifying hospitals in South Carolina. The net reimbursement benefits associated with this program totaled approximately \$44.1 million in fiscal 2015, and are recognized as reductions in related contractual adjustments in the accompanying financial statements. There can be no assurance that the Authority will continue to qualify for future participation in this program or that the program will not ultimately be discontinued or materially modified. Any material reduction in such funds has a correspondingly material adverse effect on the Authority's operations.

During the Authority's fiscal 2008, the State of South Carolina reconfigured certain terms and conditions of the DSH Program for participating providers, including the Authority. Because of associated funding deferrals and other changes which impacted the timing of historical net revenue and cash flows to the Authority under the program, the Authority recognized a receivable totaling approximately \$1,496,000 at June 30, 2015, in recognition of program net revenue earned but not received in fiscal 2015.

In fiscal 2015, the Authority received from the Medicaid fiscal intermediary notices of retrospective cost settlements related to the Medicaid program funding for fiscal years 2007 and 2008. The Authority recognized an associated accrual for Medicaid overpayment totaling approximately \$2.8 million.

During fiscal 2013, the Authority received notification that South Carolina Department of Health and Human Services (SCDHHS) will no longer retrospectively cost settle Medicaid inpatient and outpatient hospital services effective November 1, 2012.

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Overall, revenue from the Medicaid program, including net disproportionate share funding and cost settlement liabilities described above, accounted for approximately 23.6% of the Authority's net patient service revenue for the year ended June 30, 2015.

The Authority has also entered into payment arrangements with various managed care organizations, commercial insurance carriers, and preferred provider organizations. Payment methodologies under these agreements include prospectively determined rates per discharge, discounts from established rates, and prospectively determined per diem rates.

Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered. Associated estimates change as a result of confirming events such as completion of audits of the Authority's cost reports by third-party payors or receipt of final settlement payments from third-party payors. Net patient service revenue was decreased by approximately \$846,000 for changes in prior year estimates of amounts receivable from or payable to third-party payors during the year ended June 30, 2015.

The composition of net patient service revenue as of June 30, 2015 is as follows:

Gross patient service revenue	\$ 3,302,824,594
Less provision for contractual and other adjustments	1,912,102,472
Less provision for uncollectible accounts	159,221,144
Net patient service revenue	<u>\$ 1,231,500,978</u>

The Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted as part of the American Recovery and Reinvestment Act of 2009 and signed into law in February 2009. In the context of the HITECH Act, the Authority must implement a certified Electronic Health Record (EHR) system in an effort to promote the adoption and "meaningful use" of health information technology (HIT). The HITECH Act includes significant monetary incentives and payment penalties meant to encourage the adoption of EHR technology. The Authority implemented a certified Electronic Health Record (EHR) system as of July 1, 2014 enabling its compliance with the meaningful use objectives mandated in the HITECH legislation. The Authority collected \$1.5 million in fiscal 2015, in incentive payments under the South Carolina Medicaid EHR incentive payment program related to its efforts at implementing certified EHR technology. The incentive payment is included in other revenue (expense) in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

(9) Service to the Community

The Authority is an active, caring member of the communities it serves. In carrying out its mission of meeting the health and wellness needs of its service areas, the Board of Trustees has established policies under which the Authority provides care to needy members of its communities. These policies include discount programs for both uninsured and indigent patients. Following these policies, charity care services totaling approximately \$63.0 million (as measured by established charges) were provided without charge (and thus not recognized in gross patient service revenue) during fiscal 2015.

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The Authority also participates in the Medicare and Medicaid programs. Under these programs, the Authority provides care to patients at payment rates that are determined by the Federal and state governments, regardless of actual cost. The Authority wrote off discounts from established charges related to these programs totaling approximately \$1.5 billion in fiscal 2015.

In addition to community service directly associated with providing Authority-based care, the Authority serves the community in other ways. For example:

- In fiscal 2015, the Authority assisted in educating the community on health-related issues by participating in health fairs and educational seminars. These events were held at local businesses, schools, and community organizations and addressed preventative health education and screening. The Authority in partnership with the University sponsored 114 cancer screening events at 50 individual sites, reaching 1,550 patients. These screenings were made available to the public for a nominal fee, and the majority of the costs incurred were absorbed by the Authority. The Authority also partnered with MUSC Physicians and the City of Charleston to support a "Healthy Aging Fair" for Charleston's senior citizens, providing blood pressure screenings and pharmacy consultations for over 300 participants. Furthermore, the Authority participated in 7 major community walk/run events including the American Heart Association's Heart Walk, Komen Race for the Cure, March of Dimes Walk America, and the Cooper River Bridge Run.
- The Authority, in conjunction with the University, also organizes employee participation in the Trident United Way. In the current year, Authority and University employees pledged over \$148,000 to help support this organization.

While the Authority has estimated the cost of many of its community efforts to serve its broadly defined service area, management and the Board of Trustees believe that such costs represent only one facet of the many ways the Authority serves the citizens of South Carolina.

(10) Employee Benefit Plans

The Authority participates in a number of employee benefit plans sponsored by the state of South Carolina, and substantially all of the Authority's employees are covered by such plans. The following generally describes the benefits associated with the most significant plans, and the Authority's relevant participation:

- The Authority and substantially all of its employees contribute to the South Carolina Retirement System (SCRS), which sponsors a cost-sharing, multiple-employer defined benefit pension plan. SCRS provides retirement, disability and other insurance benefits to plan members and beneficiaries. SCRS issues a publicly available financial report that includes financial statements and required supplementary information, which can be obtained by writing SCRS's Retirement Division at 202 Arbor Lake Drive, Columbia, South Carolina 29223 or by calling (803) 737-6800.
- SCRS participants are required to contribute 8.00% of their annual covered salary to the plan, and the Authority contributes at an actuarially determined rate (currently 15.90% of annual covered payroll). The Authority contributed approximately \$42,766,000 (10.90% statutorily required contribution plus 5.0% retiree insurance surcharge) to SCRS during fiscal 2015, equal to the required contributions. The Authority has no other liability under this plan other than to make its required contributions, which are

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fully funded through June 30, 2015. Effective July 1, 2015, the employee contribution rate increases from 8.00% to 8.16% and the employer contribution rate increases from 15.90% to 16.39%.

- The Authority's SCRS funding described above also funds the "pay-as-you-go" component of certain postretirement insurance benefits provided by the SCRS plan. The actual cost of providing such benefits to Authority retirees is not available. Nevertheless, as noted above, the Authority has no explicit liability associated with the postretirement health and life benefits component of the plan beyond its fully funded contributions obligation.
- Authority employees are eligible to participate in a state-sponsored multiemployer deferred compensation plan (The SC Deferred Compensation Program) which provides for individual employee contributory trust accounts. The Authority does not contribute to this plan and has no liability associated with employee amounts deferred under the plan.

Effective July 1, 2002, the Authority established and began sponsoring a profit sharing plan and trust titled the Special Healthcare Alternative Retirement Plan (SHARP). The SHARP is qualified under Section 401(a) of the Internal Revenue Code. Certain employees, as defined in SHARP, are eligible to participate at the commencement of employment. Contributions by the Authority to SHARP are discretionary and vest ratably over four years after two years of service. Contributions by the Authority in fiscal 2015 totaled approximately \$588,400.

The Authority also independently sponsors a tax-advantaged defined contribution plan for its employees (The MUSC 403B plan). Substantially all Authority employees are eligible to participate in this plan. Employees may contribute up to \$17,500 of eligible compensation. The Authority does not match employee contributions.

(11) Pension Plans

The South Carolina Public Employee Benefit Authority (PEBA), which was created July 1, 2012, administers the various retirement systems and retirement programs managed by its Retirement Division. PEBA has an 11-member Board of Directors, appointed by the Governor and General Assembly leadership, which serves as co-trustee and co-fiduciary of the systems and the trust funds. By law, the Budget and Control Board, which consists of five elected officials, also reviews certain PEBA Board decisions regarding the funding of the Systems and serves as a co-trustee of the Systems in conducting that review.

PEBA is considered a division of the primary government of the state of South Carolina and therefore, retirement trust fund financial information is also included in the comprehensive annual financial report of the state. PEBA issues a Comprehensive Annual Financial Report (CAFR) containing financial statements and required supplementary information for the South Carolina Retirement Systems' Pension Trust Funds. The CAFR is publicly available on the Retirement Benefits' link on PEBA's website at www.peba.sc.gov, or a copy may be obtained by submitting a request to PEBA, P.O. Box 11960, Columbia, SC 29211-1960.

(a) Plan Description

- The South Carolina Retirement System (SCRS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1945, pursuant to the provisions of Section 9-1-20 of the South Carolina Code of Laws for the purpose of providing retirement

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allowances and other benefits for employees of the state, its public school districts, and political subdivisions.

- The State Optional Retirement Program (ORP) is a defined contribution plan that is offered as an alternative to certain newly hired state, public school, and higher education employees. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers.
- The South Carolina Police Officers Retirement System (PORS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1962, pursuant to the provisions of Section 9-11-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for police officers and firemen of the state and its political subdivisions.

(b) Membership

Membership requirements are prescribed in Title 9 of the South Carolina Code of Laws. A brief summary of the requirements under each system is presented below.

- SCRS – Generally, all employees of covered employers are required to participate in and contribute to the system as a condition of employment. This plan covers general employees and teachers and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election. An employee member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.
- State ORP – As an alternative to membership in SCRS, newly hired state, public school, and higher education employees and individuals newly elected to the S.C. General Assembly beginning with the November 2012 general election have the option to participate in the State Optional Retirement Program (State ORP), which is a defined contribution plan. State ORP participants direct the investment of their funds into a plan administered by one of four investment providers. PEBA assumes no liability for State ORP benefits. Rather, the benefits are the liability of the investment providers. For this reason, State ORP programs are not considered part of the retirement systems for financial statement purposes. Employee and employer contributions to the State ORP are at the same rates as SCRS. A direct remittance is required from the employers to the member's account with investment providers for the employee contribution (8%) and a portion of the employer contribution (5%). A direct remittance is also required to SCRS for the remaining portion of the employer contribution (5.75%) and an incidental death benefit contribution (0.15%), if applicable, which is retained by SCRS.
- PORS – To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; or to serve as a peace officer employed by the Department of Corrections, the Department of Juvenile Justice, or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS

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members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute. An employee member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. An employee member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

(c) **Benefits**

Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a legislative change in the code of laws. Key elements of the benefit calculation include the benefit multiplier, years of service, and average final compensation. A brief summary of benefit terms for each system is presented below.

- **SCRS** – A Class Two member who has separated from service with at least five or more years of earned service is eligible for a monthly pension at age 65 or with 28 years credited service regardless of age. A member may elect early retirement with reduced pension benefits payable at age 55 with 25 years of service credit. A Class Three member who has separated from service with at least eight or more years of earned service is eligible for a monthly pension upon satisfying the Rule of 90 requirement that the total of the member's age and the member's creditable service equals at least 90 years. Both Class Two and Class Three members are eligible to receive a reduced deferred annuity at age 60 if they satisfy the five- or eight-year earned service requirement, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program.

The annual retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase. Members who retire under the early retirement provisions at age 55 with 25 years of service are not eligible for the benefit adjustment until the second July 1 after reaching age 60 or the second July 1 after the date they would have had 28 years of service credit had they not retired.

- **PORS** – A Class Two member who has separated from service with at least five or more years of earned service is eligible for a monthly pension at age 55 or with 25 years of service regardless of age. A Class Three member who has separated from service with at least eight or more years of earned service is eligible for a monthly pension at age 55 or with 27 years of service regardless of age. Both Class Two and Class Three members are eligible to receive a deferred annuity at age 55 with five or eight years of earned service, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program. Accidental death benefits are also provided upon the death of an active member working for a covered employer whose death was a natural and proximate result of an injury incurred while in the performance of duty.

The retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase.

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(d) Contributions

Contributions are prescribed in Title 9 of the South Carolina Code of Laws. The PEBA Board may increase the SCRS and PORS employer and employee contribution rates on the basis of the actuarial valuations; but any such increase may not result in a differential between the employee and employer contribution rate that exceeds 2.9% of earnable compensation for SCRS and 5% for PORS. An increase in the contribution rates adopted by the board may not provide for an increase of more than one-half of one percent in any one year. If the scheduled employee and employer contributions provided in statute or the rates last adopted by the board are insufficient to maintain a thirty year amortization schedule of the unfunded liabilities of the plans, the board shall increase the contribution rates in equal percentage amounts for the employer and employee as necessary to maintain the thirty-year amortization period; and, this increase is not limited to one-half of one percent per year.

- Required employee contribution rates for fiscal year 2014-2015 are as follows:

SCRS:

Employee Class Two	8.00% of earnable compensation
Employee Class Three	8.00% of earnable compensation
State ORP Employee	8.00% of earnable compensation

PORS:

Employee Class One	\$21 per month
Employee Class Two	8.41% of earnable compensation
Employee Class Three	8.41% of earnable compensation

- Required employer contributions for fiscal year 2014-2015 are as follows:

SCRS:

Employer Class Two	10.75% of earnable compensation
Employer Class Three	10.75% of earnable compensation
Employer Incidental Death Benefit	0.15% of earnable compensation

State ORP:

Employer Contribution	10.75% of earnable compensation ¹
Employer Incidental Death Benefit	0.15% of earnable compensation

PORS:

Employer Class One	7.80% of earnable compensation
Employer Class Two	13.01% of earnable compensation
Employer Class Three	13.01% of earnable compensation
Employer Incidental Death Benefit	0.20% of earnable compensation
Employer Accidental Death Program	0.20% of earnable compensation

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Of this employer contribution of 10.75% of earnable compensation, 5% of earnable compensation must be remitted by the employer directly to the ORP vendor to be allocated to the member's account with the remainder of the employer contribution remitted to SCRS.

(e) Allocation of Pension Amounts

The Authority's proportionate share of pension amounts was calculated on the basis of historical employer contributions. Although GASB 68 encourages the use of the employer's projected long-term contribution effort to the retirement plan, allocating on the basis of historical employer contributions is considered acceptable. Employer contributions recognized by the Systems that are not representative of future contribution effort are excluded in the determination of employers' proportionate shares. Examples of employer contributions not representative of future contribution efforts are contributions towards the purchase of employee service and employer contributions paid by employees.

The following table provides the employer contributions used in the determination of employers' proportionate shares of collective pension amounts reported in the Schedule of Employer Allocations.

	SCRS	PORS
The Authority's proportionate share of contributions for the fiscal year ended June 30, 2014	\$ 31,652,157	339,175
The Authority's allocation percentage of proportionate shares of collective pension amounts – June 30, 2014 measurement date	3.289184%	0.219620%

(f) Net Pension Liability

The most recent annual actuarial valuation reports adopted by the PEBA Board and Budget and Control Board are as of July 1, 2013. The net pension liability of each defined benefit pension plan was therefore determined based on the July 1, 2013 actuarial valuations, using membership data as of July 1, 2013, projected forward to the end of the fiscal year, and financial information of the pension trust funds as of June 30, 2014, using generally accepted actuarial procedures. Information included in the following schedules is based on the certification provided by PEBA's consulting actuary, Gabriel, Roeder, Smith and Company.

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The net pension liability (NPL) is calculated separately for each system and represents that particular system's total pension liability determined in accordance with GASB No. 67 less that System's fiduciary net position. As of June 30, 2014, NPL amounts for SCRS and PORS and the Authority's proportioned share are as follows:

System	Total pension liability	Plan fiduciary net position	Collective net pension liability (asset)	The Authority's portion of collective net pension liability	The Authority's proportioned share of net pension liability
SCRS	\$ 42,955,205,796	25,738,521,026	17,216,684,770	3.289184%	\$ 566,288,522
PORS	5,899,529,434	3,985,101,996	1,914,427,438	0.219620%	4,204,542

For the year ended June 30, 2015, the Authority recognized pension expense of \$39,689,151 and \$367,845 related to the SCRS and PORS pension plans.

(g) Actuarial Assumptions and Methods

Actuarial valuations involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Amounts determined during the valuation process are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. South Carolina state statute requires that an actuarial experience study be completed at least once in each five-year period. The last experience study was performed on data through June 30, 2010, and the next experience study is scheduled to be conducted after the June 30, 2015 annual valuation is complete.

The following table provides a summary of the actuarial assumptions and methods used in the July 1, 2013, valuations for SCRS and PORS.

	SCRS	PORS
Actuarial cost method	Entry age	Entry age
Actuarial assumptions:		
Investment rate of return	7.5%	7.5%
Projected salary increases	levels off at 3.5%	levels off at 4.0%
Includes inflation at	2.75%	2.75%
Benefit adjustments	lesser of 1% or \$500	lesser of 1% or \$500

The post-retiree mortality assumption is dependent upon the member's job category and gender. This assumption includes base rates which are automatically adjusted for future improvement in mortality using published Scale AA projected from the year 2000.

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Former Job Class	Males	Females
Educators and Judges	RP-2000 Males (with White Collar adjustment) multiplied by 110%	RP-2000 Females (with White Collar adjustment) multiplied by 95%
General Employees and Members of the General Assembly	RP-2000 Males multiplied by 100%	RP-2000 Females multiplied by 90%
Public Safety, Firefighters and members of the South Carolina National Guard	RP-2000 Males (with Blue Collar adjustment) multiplied by 115%	RP-2000 Females (with Blue Collar adjustment) multiplied by 115%

(h) Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments for actuarial purposes is based upon the 30 year capital market outlook at the end of the third quarter 2012. The actuarial long-term expected rates of return represent best estimates of arithmetic real rates of return for each major asset class and were developed in coordination with the investment consultant for the Retirement System Investment Commission (RSIC) using a building block approach, reflecting observable inflation and interest rate information available in the fixed income markets as well as Consensus Economic forecasts. The actuarial long-term assumptions for other asset classes are based on historical results, current market characteristics and professional judgment.

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The RSIC has exclusive authority to invest and manage the retirement trust funds' assets. As co-fiduciary of the Systems, statutory provisions and governance policies allow the RSIC to operate in a manner consistent with a long-term investment time horizon. The expected real rates of investment return, along with the expected inflation rate, form the basis for the target asset allocation adopted annually by the RSIC. For actuarial purposes, the long-term expected rate of return is calculated by weighting the expected future real rates of return by the target allocation percentage and then adding the actuarial expected inflation which is summarized below. For actuarial purposes, the 7.50% assumed annual investment rate of return used in the calculation of the total pension liability includes a 4.75% real rate of return and a 2.75% inflation component.

Asset class	Target asset allocation	Expected arithmetic real rate of return	Long term expected portfolio real rate of return
Short term	5.0%		
Cash	2.0	0.30	0.01
Short duration	3.0	0.60	0.02
Domestic fixed income	13.0		
Core fixed income	7.0	1.10	0.08
High yield	2.0	3.50	0.07
Bank loans	4.0	2.80	0.11
Global fixed income	9.0		
Global fixed income	3.0	0.80	0.02
Emerging markets debt	6.0	4.10	0.25
Global public equity	31.0	7.80	2.42
Global tactical asset allocation	10.0	5.10	0.51
Alternatives	32.0		
Hedge funds (low beta)	8.0	4.00	0.32
Private debt	7.0	10.20	0.71
Private equity	9.0	10.20	0.92
Real estate (broad market)	5.0	5.90	0.29
Commodities	3.0	5.10	0.15
Total expected real return	100.0%		5.88
Inflation for actuarial purposes			2.75
Total expected nominal return			8.63

(i) **Discount Rate**

The discount rate used to measure the total pension liability was 7.9%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers in SCRS and PORS will be made based on the actuarially determined rates based on provisions in the South

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Carolina State Code of Laws. Based on those assumptions, each System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

(j) Sensitivity Analysis

The following table presents the sensitivity of the Authority's net pension liability calculated using the discount rate of 7.50%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.50%) or 1.00% higher (8.50%) than the current rate.

The Authority's Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1.00% Decrease (6.50)%	Current discount rate (7.50%)	1.00% Increase (8.50)%
SCRS	\$ 732,788,219	566,288,522	427,345,757
PORS	5,875,899	4,204,542	2,821,843

(k) Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2015, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred outflows of resources	Deferred inflows of resources
Net differences between expected and actual experience:		
SCRS	\$ 16,045,734	—
PORS	112,201	—
Changes of assumption:		
SCRS	—	—
PORS	—	—
Net difference between projected and actual earnings on pension plan investments:		
SCRS	—	47,740,764
PORS	—	486,496
Changes in proportion and differences between the Authority's contributions and proportionate share of contributions:		
SCRS	—	—
PORS	—	—

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	<u>Deferred outflows of resources</u>	<u>Deferred inflows of resources</u>
The Authority's contributions subsequent to the measurement date:		
SCRS	\$ 34,547,206	—
PORS	361,990	—
Total	<u>\$ 51,067,131</u>	<u>48,227,260</u>

\$34,909,196 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2016. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

	<u>SCRS</u>	<u>PORS</u>
Year ended June 30:		
2015	\$ (6,972,081)	(92,526)
2016	(6,972,081)	(92,526)
2017	(6,972,081)	(92,526)
2018	(6,972,081)	(92,526)
2019	<u>(3,806,706)</u>	<u>(4,191)</u>
Net balance of deferred outflows/(inflows) of resources	<u>\$ (31,695,030)</u>	<u>(374,295)</u>

(i) Pension Plan Fiduciary Net Position

Detailed information regarding the fiduciary net position of the plans administered by PEBA is available in the separately issued CAFR containing financial statements and required supplementary information for SCRS and PORS. The CAFR of the Pension Trust Funds is publicly available on PEBA's Retirement Benefits' website at www.retirement.sc.gov, or a copy may be obtained by submitting a request to PEBA, PO Box 11960, Columbia, SC 29211-1960.

(12) Business and Credit Concentrations

The Authority provides healthcare services through its inpatient and outpatient care facilities principally located in and around Charleston, South Carolina. The Authority grants credit to patients, substantially all of whom are residents of its service area. The Authority generally does not require collateral or other security in extending credit to patients; however, it routinely obtains assignment of (or is otherwise entitled to receive) patients' benefits payable under their health insurance programs, plans or policies (e.g., Medicare, Medicaid, Blue Cross, and commercial insurance policies).

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The mix of receivables from patients and third-party payors as of June 30, 2015 is as follows:

Blue Cross	10%
Medicare	23
Medicaid	28
Private Insurance/Managed Care	18
Medically Indigent/Self Pay/Other	21
	<u>100%</u>

(13) Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; business interruption; errors and omissions; employee injuries and illness; natural disasters; and professional and general liability claims and judgments. The Authority participates in the South Carolina Insurance Reserve Fund (IRF), which provides coverage for substantially all such risks. The Authority pays premiums to the IRF and effectively receives unlimited (when combined with related recovery limit protections provided by state statutes) occurrence-based coverage for all consequential risks of loss. There has been no change in coverage during the year ended June 30, 2015.

(14) Leases

The Authority has entered into capital lease agreements for the purpose of financing certain equipment acquisitions expiring in various years through 2021. Future minimum lease payments due under capital leases, by year and in the aggregate, follow:

2016	\$ 561,939
2017	473,736
2018	473,736
2019	473,736
2020	436,865
Thereafter	491,026
	<u>2,911,038</u>
Less interest at rates from 1.5% to 4.83%	348,739
	<u>2,562,299</u>
Present value of future minimum lease payments	2,562,299
Less current installments	462,551
	<u>2,099,748</u>
Capital lease obligations, excluding current installments	\$ 2,099,748

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The Authority also enters into operating leases for various capital assets expiring in various years through 2039. Future minimum lease payments due under noncancelable operating lease agreements with third parties are as follows:

2016	\$ 21,401,527
2017	13,129,540
2018	10,475,383
2019	8,767,118
2020	5,735,148
Thereafter	21,138,732
Total	<u>\$ 80,647,448</u>

Rental expense for all operating leases was approximately \$23,809,000 in fiscal 2015. Management expects that most lease agreements will be replaced, as they expire, with similar agreements.

(15) Related Party Transactions

The following describes the Authority's material agreements with related parties:

(a) The University

Under the terms of various agreements related to the Authority's establishment as a distinct healthcare system, the University provides a variety of shared services for the Authority, including facilities oversight, administrative and financial services, and other types of general operating support. The Authority also leases certain facilities space from the University under the Reciprocal Space Agreement. The cost of these services and leases totaled approximately \$58,873,000 for fiscal 2015, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority also reimburses the University for certain professional clinical services provided by interns and residents receiving medical education at the University. The cost of these services totaled approximately \$49,963,000 for fiscal 2015, and is included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

In March 2010, the Internal Revenue Service (IRS) published its administrative determination that medical residents are exempt from Federal Insurance Contributions Act (FICA) payroll taxes based on "the student exception" for tax periods ending before April 1, 2005, when new IRS regulations went into effect that otherwise address this matter. The University timely filed a protective claim with the IRS for medical resident FICA taxes paid during the period from January 1, 1996 to March 31, 2005, and was expecting a refund of those taxes from the IRS. The University estimated the refund amount at \$13.0 million, plus overpayment interest of \$11.7 million, for a total estimated refund amount of \$24.7 million. Given that the Authority reimbursed the University for resident salaries (including FICA taxes) during the period subject to the refund of the FICA taxes, the estimated refund amount is recoverable by the Authority from the University upon collection and, therefore, was recorded as an amount due from the University. In fiscal year 2011 the estimated receivable was decreased to

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\$22.2 million based on additional analysis performed by management. The Authority received \$20.7 million and \$1.5 million in fiscal 2013 and 2014, respectively, from the IRS.

In fiscal year 2013 the Authority recorded a liability of approximately \$1.8 million to the Ralph H. Johnson Veterans Affairs Medical Center related to this matter. The balance of the liability remained the same as of June 30, 2015.

The Authority rents certain facilities space to and provides limited support services for the University. The income earned by the Authority for such items was approximately \$2,585,000 during fiscal 2015, which is included in other revenue (expense) in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

The Authority had a net payable to the University of \$6,841,000 at June 30, 2015. This payable is a component of due to related parties on the Statement of Net Position.

(b) University Medical Associates (UMA)

UMA, a component unit of the University, is a separately organized professional services corporation associated with the University's faculty practice plan. UMA and the Authority have entered into certain agreements related to clinical and other services provided by UMA and its practicing physicians for the benefit of the Authority. Net amounts paid by the Authority to UMA under these agreements totaled approximately \$58,469,000 during fiscal 2015, and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

UMA also provides billing and collection services to the Authority related to certain limited clinical services, for which UMA receives an administrative fee. Total billings by UMA for the Authority services were approximately \$44,790,000 in fiscal 2015. The amounts collected and remitted by UMA to the Authority with respect to these billings amounted to approximately \$9,425,000 in fiscal 2015. The administrative fees paid by the Authority to UMA amounted to approximately \$783,000 for fiscal 2015 and are included in services and supplies expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

UMA and the Authority jointly fund the costs of an ambulatory and revenue cycle Electronic Health Record (EHR) system. The funding percentages for each entity depend on the particular costs incurred. The types of costs paid in fiscal year 2015 were primarily operating costs as the revenue cycle component of the EHR system went live on July 1, 2014 (note 4). The ambulatory component has been live since May 2012. Net amounts paid by UMA to the Authority totaled approximately \$2.7 million during fiscal year 2015.

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The Authority had a net receivable from UMA in the amount of \$627,000 at June 30, 2015. This is a component of due to related parties on the Statement of Net Position.

(c) ***Initiant, LLC.***

In April 2014, the Authority, became a founding member of a health collaborative named Initiant. Initiant is a limited liability company owned by the founding members, with the opportunity to add more members (owners) and participants (nonowners) over time. The Authority has representation on the Board of Managers of the collaborative and exercises joint control with the other members over Initiant, LLC. The other members are Greenville Health System (Greenville, SC), McLeod Health (Florence, SC), Palmetto Health (Columbia, SC) and Self Regional Healthcare (Greenwood, SC). The purpose of this collaborative is to create efficiencies and synergies that mitigate the rising costs of health care. The Authority contributed \$25,000 of startup capital to the collaborative in fiscal year 2015. The Authority also recorded and had outstanding at June 30, 2015 a \$131,000 payable to the collaborative for the Authority's portion of professional fees incurred by Initiant.

(d) ***The State of South Carolina***

The Authority benefits from certain administrative services provided by related State agencies and departments. The cost of these services (primarily related to insurance program administration, record-keeping, and centralized treasury management) is either insignificant relative to the Authority's allocable portion or is funded by the Authority with payments as described in notes 9, 11, 12, 13 and 14.

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Required Supplementary Information

June 30, 2015

(Unaudited)

**THE AUTHORITY'S
PROPORTIONATE SHARE OF THE
NET PENSION LIABILITY**

South Carolina Retirement System (SCRS) Pension Plan

As of June 30, 2014 Measurement Date

	<u>2015</u>	<u>2014</u>
The Authority's proportion (percentage) of the collective net pension liability	3.289184%	3.289184%
The Authority's proportionate share (amount) of the collective net pension liability	\$ 566,288,522	589,943,980
The Authority's covered-employee payroll	\$ 268,970,820	259,311,350
The Authority's proportionate share (amount) of the collective net pension liability as a percentage of its covered-employee payroll	210.53%	227.50%
The pension plan's fiduciary net position as a percentage of the total pension liability	59.90%	56.39%

**THE AUTHORITY'S
PROPORTIONATE SHARE OF THE
NET PENSION LIABILITY**

Police Officers Retirement System (PORS) Pension Plan

As of June 30, 2014 Measurement Date

	<u>2015</u>	<u>2014</u>
The Authority's proportion (percentage) of the collective net pension liability	0.219620%	0.219620%
The Authority's proportionate share (amount) of the collective net pension liability	\$ 4,204,542	4,552,744
The Authority's covered-employee payroll	\$ 2,692,311	2,589,067
The Authority's proportionate share (amount) of the collective net pension liability as a percentage of its covered-employee payroll	156.17%	175.85%
The pension plan's fiduciary net position as a percentage of the total pension liability	67.50%	62.98%

See accompanying notes to required supplementary schedules and accompanying independent auditors report.

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Required Supplementary Information

June 30, 2015

(Unaudited)

THE AUTHORITY'S CONTRIBUTIONS

South Carolina Retirement System (SCRS) Pension Plan

Fiscal year ended June 30, 2015

	<u>2015</u>	<u>2014</u>	<u>2013</u>
Statutorily or contractually required contribution	\$ 29,317,819	27,487,003	27,997,059
Contributions recognized by the pension plan in relation to the statutorily or contractually required employer contribution	29,317,819	27,487,003	27,997,059
Contributions deficiency (excess)	—	—	—
The Authority's covered-employee payroll	268,970,820	259,311,350	264,123,194
Contributions as a percentage of covered-employee payroll	10.90%	10.60%	10.60%

THE AUTHORITY'S CONTRIBUTIONS

Police Officers Retirement System (PORS) Pension Plan

Fiscal year ended June 30, 2015

	<u>2015</u>	<u>2014</u>	<u>2013</u>
Statutorily or contractually required contribution	\$ 361,039	332,436	349,962
Contributions recognized by the pension plan in relation to the statutorily or contractually required employer contribution	361,039	332,436	349,962
Contributions deficiency (excess)	—	—	—
The Authority's covered-employee payroll	2,692,311	2,589,067	2,845,220
Contributions as a percentage of covered-employee payroll	13.41%	12.84%	12.30%

See accompanying notes to required supplementary schedules and accompanying independent auditors report.

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June 30, 2015

(Unaudited)

SCRS

Valuation date: Actuarially calculated contribution rates are calculated as of July 1, 2011.

Methods and assumptions used to determine contribution rates:

Actuarial cost method: Entry Age Normal
Amortization method: Level % of Pay
Amortization period: 25 years, open

Asset valuation method: The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.

Inflation: 2.75%

Investment Rate of Return: 7.50%

Salary Increases: 3.50% plus step-rate increases for members with less than 25 years of service.

Mortality: RP-2000 Mortality Table (White Collar Adjustment for Educators), projected at Scale AA from Year 2000. Male rates multiplied by 100% for non-educators and 110% for educators. Female rates multiplied by 90% for non-educators and 95% for educators.

Other Comments: As a result of enactment of Act 278, the member and employer contribution rates for SCRS are determined in accordance with Sections 9-1-1085 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.

PORS

Valuation date: Actuarially calculated contribution rates are calculated as of July 1, 2011.

Methods and assumptions used to determine contribution rates:

Actuarial cost method: Entry Age Normal
Amortization method: Level % of Pay
Amortization period: 30 years, open

Asset valuation method: The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period.

Inflation: 2.75%

Investment Rate of Return: 7.50%

Salary Increases: 4.00% plus step-rate increases for members with less than 12 years of service.

Mortality: RP-2000 Mortality Table with Blue Collar Adjustment, projected at Scale AA from Year 2000. Male and female rates are multiplied at 115%.

Other Comments: As a result of enactment of Act 278, the member and employer contribution rates for SCRS are determined in accordance with Sections 9-11-225 of the South Carolina Code. Contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 24 months after the valuation date.

See accompanying notes to required supplementary schedules and accompanying independent auditors report.